



**LOGO EAST APPLICATION
TWINNING PROJECT**

**Municipality of Rotterdam – Istanbul Metropolitan
Municipality**

I GENERAL INFORMATION

1. Information applicants

Dutch applicant organisation	
Organisation	<ul style="list-style-type: none"> ● Municipality: Rotterdam Municipality <input type="radio"/> Province / Region: <input type="radio"/> Water Board: <input type="radio"/> Public Utility Company:
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Name and position legal representative	Mr. Ahmed Aboutaleb, Mayor of Rotterdam

Partner organisations from LOGO East target country	
Organisation	<ul style="list-style-type: none"> <input type="radio"/> Municipality: <input type="radio"/> Province / Region: <input type="radio"/> Water Board: ● Public Utility Company: Istanbul Enerji Sanayi ve Ticaret A.Ş. owned by Istanbul Metropolitan Municipality
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Name and position legal representative	Mr. Kadir TOPBAŞ The Mayor of Istanbul Metropolitan Municipality

2. Project information

Project title	Istanbul Energy Policies and CO2 reduction in the metropolitan environment
Main theme and policy field	Municipal public services delivery
Application date	April 29 th 2008 / February 2 nd 2009
Total project budget	€ 40.000
Project duration	9 Months
Starting date	February 2 nd 2009
End date	October 30 th 2009

III PROJECT DESCRIPTION

1. Problem analysis

Rotterdam and Istanbul

Rotterdam Municipality and Istanbul Metropolitan Municipality are sister cities. Already in 2000 a "Letter of intent" has been signed by both mayors and in 2004 the mayor of Istanbul Metropolitan Municipality (Kadir Topbaş) and the former mayor of Rotterdam (Ivo Opstelten) have signed a "sister-city Protocol". In this Protocol, the two cities have agreed that they shall co-operate on the basis of information and experience exchange in a whole range of fields, like environmental protection and development.

Furthermore Istanbul and Rotterdam are both actively involved in the Clinton Climate Initiative (CCI). According to the CCI "Cities have a central role to play in tackling climate change, particularly as cities bear a disproportional responsibility for causing it. In fact, cities consume 75 per cent of the world's energy and produce 80 per cent of its greenhouse gas emissions."

This project is dedicated to making a difference in the fight against climate change in practical and measurable ways, initiating programs that directly result in substantial reductions in heat-trapping greenhouse gas emissions. CCI is facilitating the sharing of information about successfully and replicable programs. Cooperation in the field of energy is thus completely in line with both the protocol and the engagement of both cities in the CCI. This twinning project will be a further step in the cooperation between Rotterdam and Istanbul.

Energy and Turkey

Energy is an issue in Turkey for a number of reasons.

First of all, Turkey depends on energy imports to an even bigger extend than the EU (currently 70% of its total energy needs). Therefore it needs to use energy in a (more) efficient way. Secondly, Turkey is negotiating its entrance in the European Union. It has therefore to comply with EU directives, including those regarding the environment and energy efficiency. For instance, the Turkish Grand National Assembly has recently adopted a Law on Energy Efficiency, based upon EU legislation. Thirdly, for environmental reasons there is a need in both the Netherlands and Turkey to economize on energy. The Turkish local governments are well aware of the danger of climate change. Istanbul in particular devotes a lot of attention to the unwanted effects of climate change, like droughts. In 2009 Istanbul will be hosting the *World Water Forum*.

The legislative framework

The energy efficiency activities have gained momentum with the European Union adaptation process. The energy efficiency law is in effect since 18th of April 2007. This law is based on the EU directives 2006/32/EC, 93/76/EEC and 2002/91/EC. The energy efficiency law promotes energy efficiency and attributes some of the responsibility to the municipalities. This law introduces a new approach and supports the establishment of energy consulting firms. These energy consulting firms are encouraged to prepare energy efficiency programs, projects and energy efficiency training for companies, institutions and citizens.

Energy Policies and CO2 reduction in the metropolitan region

Istanbul is a fast growing metropolitan area that attracts many new inhabitants and businesses. As a result new urban development projects are abundant. As can be seen already in Istanbul, these new urban project offer a chance to implement new energy infrastructure , as well as smart programmatic combinations and sustainable transport. Apart from these new developments, one of the major issues is how to deal with the existing built

environment. The past few years the Rotterdam Climate Initiative (in collaboration with many parties like the Delft University) has gained a lot of experience in the field of energy policies and CO₂-reduction in the built environment. The approach is at the spatial planning level as well as on the practical level ranging from:

district heating, passive houses, waste incineration, wind energy, solar energy, sustainable port solutions, street lighting and in cooperation with Delft University, bioclimatic urban design and a combined approach for urban planning and energysystems called REAP.

REAP: Energy and sustainability have been a topic for many years at the scale of the building. In REAP the focus is enlarged to neighbourhood systems, urban areas and the metropolitan region as a whole.

Best practices

The primary energy consumption (currently 107 mtoe) is projected to rise to 222 mtoe). The EU25 average energy intensity (toe/m€) is 208, the Turkish average is however 480 (2003). Moreover, The figure below (Tülin Keskin, *Energy management in the building sector: the Turkish experience*) makes clear that the energy efficiency in Turkey has been developing more slowly than in the EU-25. Keskin concludes that up to 50% energy saving potential still exist for Turkey.

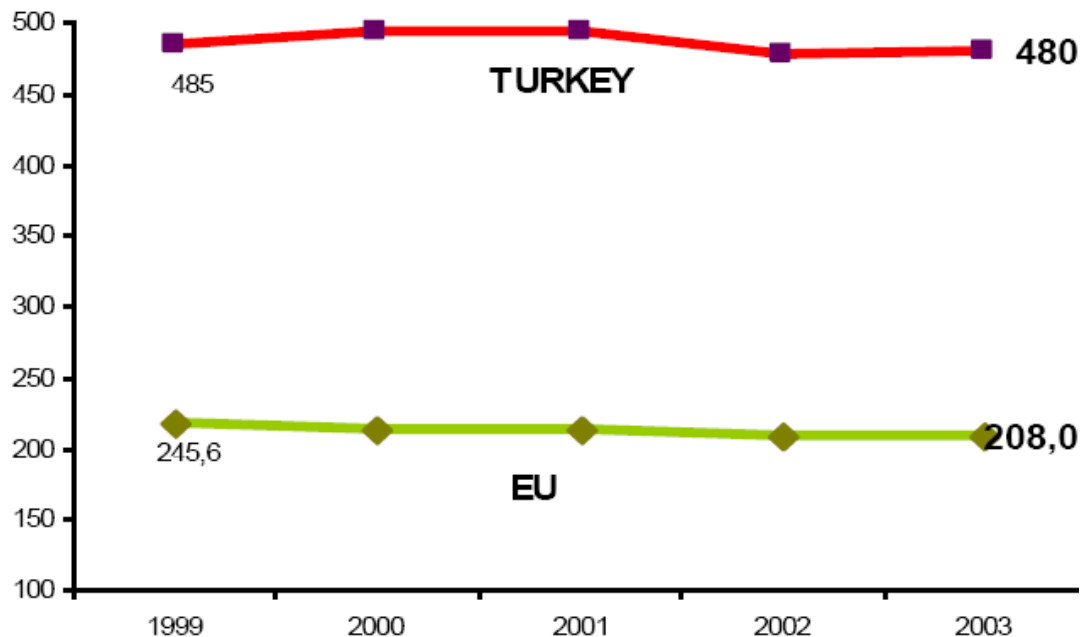


Figure: energy intensity (toe/m€) in Turkey and the EU-25 (Keskin, *Energy management in the building sector: the Turkish experience*)

Exchange of ideas and focus on main needs and urgencies.

For the exchange of this information and to determine what else to focus on, the Turkish partners will be invited to take part in SASBE. This is a smart and sustainable built environment (SASBE) conference which will be held in Delft. The city of Rotterdam will be hosting a special event of the conference.

Sustainability in the built environment has many topics, therefore it is necessary to focus on the needs and urgencies. Important issues in the project are district heating, energy and urban planning etc. which will be addressed.

Formulation of the problem

The strategic plan of the Istanbul Metropolitan Municipality has determined that energy should not be wasted. The energy companies of the municipality support this effort. However, a lot needs to be done in the field of energy efficiency. The Istanbul Energy A.S. is about to apply for an energy service company licence in order to be first municipal energy service company of Turkey. The company lacks qualified technical staff, knowledge of energy efficiency and expertise of networking. To sum the up:

- Limited experience in incorporating energy efficiency considerations into the municipal decision-making process;
- Limited experience in developing and implementing energy efficiency strategies and action plans for efficient use of energy in municipal buildings
- Limited research possibilities concerning efficient use of energy in municipal buildings
- Uncertainty over the potential (energy and financial) savings from different energy using applications;
- The task to deliver technical, managerial and financial services to personnel of the directorates;
- Absence of communication infrastructure between district municipalities (to share the best practice examples at national or international level).

2. Target Group

Stakeholders

- Istanbul Energy Corporation;
- directorates of 32 district municipalities;
- Infrastructure Directorate Technical;
- Strategic Planning Directorates.
- Representative from Istanbul C40 city, Clinton Climate initiative

Citizens

The cost of energy have been a burden for many Turkish citizens. Consumers have moreover been hit with electricity price hikes since the beginning of 2008. The total electricity price increase since the beginning of 2008 amounts to more than 50% for households. Citizens are not very familiar with ways to increase energy savings.

The project will benefit citizens in two ways:

In the first place information about saving energy will be provided to citizens of Istanbul. They will increase their capability to determine their energy-use.

Secondly, citizens will benefit from the improvement of efficient use of energy whether be it in municipal buildings or in other ways. Ultimate, these improvements will be noticed on the tax / energy bill.

3. Project objective

This project aims to develop expertise at Istanbul Energy Corporation and to support 32 district municipalities regarding energy policies and information on energy use.

Overall Objective

The primary objectives of the project are:

1. to improve energy efficiency and to strengthen the infrastructure of Istanbul Energy

- Company, in accordance with the Energy Efficiency Legislative Act, dated 18.2.2007;
2. to implement sustainable energy solutions in the municipal buildings and building environment;
 3. to share knowledge on energy efficiency in Istanbul

The Project aims to promote sustainable energy policies in Istanbul metropolitan municipality and the district municipalities by improving in the municipal buildings to support energy efficiency projects (pilots) and share best practices with district municipalities. The Project also aims to improve the capability of local authorities (policymaking). The Project contributes to a reduction of greenhouse gases emissions originating from the implementation of sustainable energysystems in for example buildings at municipal area, while improving the reliability of the energy management.

4. Results

- 4.1 Istanbul energy company will provide a more effective and energy efficient service to the inhabitants of Istanbul;
- 4.2 establishment of a communication infrastructure between district municipalities to share the best practice examples at national or international level;
- 4.3 civil servants from Istanbul energy company and Istanbul Metropolitan Municipality will have acquired further technical knowledge regarding energy efficiency;
- 4.4 civil servants from Istanbul Energy Company and Istanbul Metropolitan Municipality will be able to develop and implement energy efficiency strategies and action plans;
- 4.5 the Istanbul energy company will introduce energy efficiency training programs and consultancy services to district municipalities of Istanbul.

5. Indicators

- 5.1 by March 2009 a guidebook will have been developed regarding the ambitions on energy efficiency;
- 5.2 by June 2009 a needs assessment report will have been finished and presented at the SASBE conference;
- 5.3 by June 2009 a district municipalities network will be in place;
- 5.4 by July 2009 an actionplan will have be ready and signed;
- 5.5 by July 2009 a training will be attended or have been attended by civil servants form the Istanbul Energy Company and/or Istanbul Metropolitan Municipality;
- 5.6 by August 2009 a training (policy making) will be attended by civil servants from Istanbul Energy Company and/or Istanbul Metropolitan Municipality;
- 5.7 by September 2009 the acquired knowledge will be disseminated;
- 5.8 by Oktober 2009 best practices will be shared at a symposium on energy efficiency (tentative).

6. Activities and planning

An explanation in advance

- Train the trainers

It is important to ensure the sustainability of the project. As a consequence the Istanbul Metropolitan Municipality / Istanbul energy company will provide free services to the district municipalities.

- Innovation.

Saving energy depends for a large part on the willingness to innovate. Therefore innovation is an important part of the project. The municipalities should not only share present knowledge but exchange (information of) pilots too. Particularly interesting for Istanbul metropolitan municipality might be the fact that Rotterdam has run a couple of projects involving solar energy.

- Flexibility

To improve energy efficiency and to enhance citizen's involvement, while maintaining/improving the reliability is complicated. Therefore, a solid piece of work is essential. Crucial in this respect are: the collection of all relevant data, a needs assessment and the action plan. The project should remain flexible (timetable, detailed content etc.) Especially since the time schedule is very tight. Allowance should be made to switch and strike in the program.

	plan. This action plan focuses on the technically details of the project. Rotterdam visits istanbul					
Activity 4	District Municipalities Energy Efficiency Network A formal district municipalities energy efficiency network will be established to support corporation of energy into municipal programs and strategies.	June 2009	Sungur/ Oudeman		Energy efficiency Network between district municipalities will be set up as an IT based system.	Establishment of the district municipalities energy efficiency network
Activity 5	Training energy efficiency (technically) Training seminars in Rotterdam for technical civil servants of Istanbul energy company and Istanbul metropolitan municipallity	June / July 2009	Sungur/ Oudeman		Training seminar documents will be provided to improve sustainability	Training of civil servants of Istanbul energy company and Istanbul metropolitan municipallity
Activity 6	Training energy efficiency for city street lighting (policy making) Training seminars in Rotterdam for civil servant of istanbul energy company and Istanbul metropolitan municipallity	July / August 2009	Sungur/ Oudeman		Training seminar documents will be provided to improve sustainability	Training of civil servants of Istanbul energy company and Istanbul metropolitan municipallity
Activity 7	Dissemination of knowledge	July/August 2009: technical knowledge August / September 2009: Policy making	Sungur/ Oudeman		Energy efficient seminar documents which give valuable information. The best practice examples at national or international level will be shared with District Municipalities Energy	-

Activity 8					Efficiency Network.	
	Symposium in Istanbul on energy and urbanplanning with street lighting and other issues (tentative)	October 2009	Sungur/ Oudeman		Symposium brochure Booklet of symposium	- to disseminate expertise and knowledge - to explore the possibilities of long-lasting cooperation on energy and climate change issues such as streetlighting

7. Risk analysis

Definition of the risk	Impact of the risk	Solution to the risk
1. The VNG deadline (November 2009) for the implementation of the Logo-East project activity is too tight.	Because of the lack of time, not all the planned Logo-East activities will be undertaken.	In order to avoid this risk, the Dutch and Turkish partners have established a realistic and performing planning of activities.
2. Istanbul Enerji A.S. is lacking English speaking civil servants.	Because of this, the communication between the Turkish and the Dutch partners could be difficult.	In order to avoid this risk, the Turkish partners should work with English speaking civil staff.
3. The staff at Istanbul Enerji A.S. does not have enough experience in project management.	Because of this, the implementation of the Logo-East project activities could be more difficult and slow.	To avoid this risk, the Turkish partners should also work with local specialists, Turkish / English speaking persons and experienced in project management
4. Lack of flexibility	Street lighting systems are complicated	Maintaining enough flexibility in the project. The action plan will be the main guideline of the project (implementation)
5. The situation in Rotterdam and Istanbul is incomparable	Irrelevant knowledge will be shared	A sound collection of all relevant data and a needs assessment will be prepared

8. Sustainability

- Rotterdam and Istanbul are cooperating in different fields and the relations between Rotterdam and Istanbul are good;
- Istanbul and Rotterdam are both engaged in the Clinton Climate Initiative;
- Towards the end of this project, the prospect on long-lasting cooperation regarding street lighting will be explored;
- The trained staff members of the Istanbul energy company will continue to train others (e.g. district municipalities);
- The establishment of a District Municipalities Energy Efficiency Network will facilitate 'train the trainers';
- The action plan will be detailed and is usable after the project;
- Training seminar documents will be provided;
- A booklet of the symposium will be disseminated;
- The final Logo East report will be disseminated to district municipalities.

9. Public relations and dissemination of results

Communication

- regular internet news flashes (for example at the website of the Rotterdam municipality);
- regular press releases, TV and radio interviews;
- dissemination of the project by booklets etc.

Dissemination of results

- Organizing workshops;
- District Municipalities Energy Efficiency Network
- Organizing a conference to disseminate the project results;
- Constructing a link to the project web site in web sites of the company and of the Istanbul Metropolitan Municipality.

10. Rotterdam team

According to the task, the team can exist of different people

City of Rotterdam, Gillis Oudeman, contact person
Rotterdam Climate Initiative specialist for built environment
Rotterdam Climate Initiative specialist for district heating
Rotterdam Climate Initiative general expertise
dS+V City of Rotterdam Urban planner / Phd Student Technical University Delft
dS+V, Head of spatial planning
Street Lighting Specialists City of Rotterdam
Technical University Delft, Ass. Professor in climate design and sustainability.