This project is co-financed by the European Union and the Republic of Turkey

Doing more with less energy

Project Identity

Name: Technical Assistance for Improving Energy Efficiency in Buildings

Duration: 24 months (13.04.2015 – 12.04.2017)

Budget: 3.333.500,00 Avro

Fund Provider: The European Union and the Government of the Republic of Turkey

Contracting Authority: Prime Ministry Undersecreteriat of Treasury, Central Finance and Contracts Unit (CFCU)

Beneficiary: Ministry of Environment and Urbanisation

Contractor: A consortium of NIRAS IC Sp. z.o.o. (Poland), Energy Saving International AS (Norway), Danish Technological Institute (Denmark) and Rast Mühendislik Hizmetleri Ltd. Şti. (Turkey).

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CFCU CENTRAL FINANCE & CONTRACTS UNIT

NIRAS

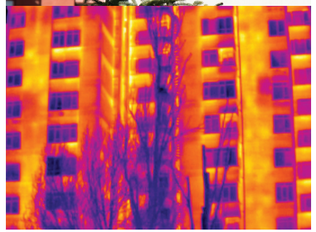
REPUBLIC OF TURKEY MINISTRY OF ENVIRONMENT AND URBANIZATION

Factors influencing development of Energy Efficicency

The success of the development of energy efficiency depends on a number of "push" and "pull" factors.

One can imagine a wagon on its way towards reaching the energy efficiency targets, with different external factors affecting its speed and movement.

To compensate for these external forces specific counter forces have to be applied to either push or pull the wagon and keep it on track.



"Pull" factors and instruments
Education, Information, Awareness
Regulation enforcement capacities
Financing Mechanisms & Economic incentives

"Push" factors and instruments
Primary + secondary legislation
Strategy, Institutional frame, Price and market development
BEP standards, codes and tools

"Push" factors and instruments:

Legislation& Regulation	Instruments: · Relationships between institutions, · Primary energy and energy efficiency legislation · Secondary Building legislation - by-laws, regulations and performance standards · All of the above are coordinated through an overall national energy efficiency policy and strategy
Market transformation	Instruments: · Energy Market: interaction between supply and demand

"Pull" factors and instruments stimulate the application and acceleration of energy efficiency development:

Information & Awareness	Instruments: · Awareness and education on Energy Efficiency · Promotion of and information on technical and financial matters
Capacity building	Instruments: · Expertise for enforcement of regulation · Cooperation among stakeholders and related donor programmes · EE sector know-how and Best Available Technologies (BAT)
Financing mechanisms	Instruments: · Financing mechanisms and schemes · Economic incentives · Tax breaks to encourage Energy Efficiency projects

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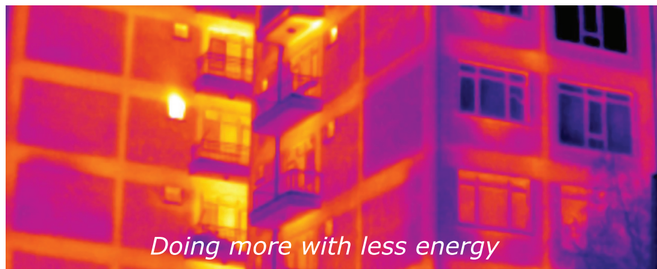
Technical Assistance for Improving Energy Efficiency in Buildings Project



Improving Energy Efficiency in Buildings

Energy Efficiency

"Using less energy to provide the same level of service"

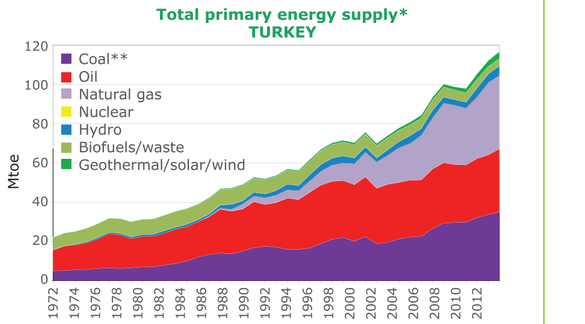
Improving energy efficiency is one of the most cost effective way of adressing the:

- challenges related to volatile energy prices on the world market
- dependence on external supply of energy sources
- adverse impact of human activities on the environment

Energy efficiency influences most of the economic activities in a country, such as Building, Industry, Transport, Agriculture, Services, Manufacturing and so on.

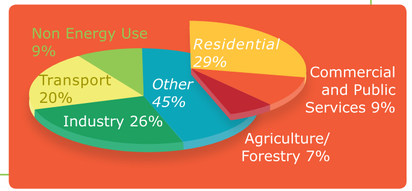
The **Energy Efficiency Strategy Paper 2012-2023** is an integral part of the Turkish Government's economic policy. The overall aim is to reduce energy intensity in Turkey (energy consumed per unit of national income) by 20% by 2023 compared to 2011.

IEA Energy Statistics
Statistics on the web: http://www.iea.org/statistics/



*Excluding electricity trade.

**In this graph, peat and oil share are aggrated with, coal, when relevant.
For more detailed data, please consult our on-line data service at http://data.iea.org.

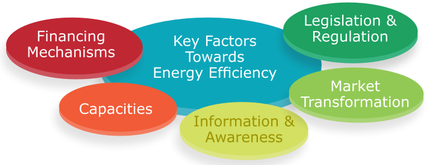


Technical Assistance for Improving Energy Efficiency in Buildings Project

The project aims to address the gaps and needs that exists in the current energy efficiency legislation and institutional framework for new and existing buildings in Turkey, and to align these with the European policies and directives related to energy efficiency in buildings, particularly the **Energy Performance in Buildings Directive** (EPBD).

To effectively promote and implement energy efficiency among the targeted groups, there is a need for a holistic approach that simultaneously addresses all the potential barriers - legal, regulatory, institutional, financial, awareness, expertise, and others, any one of which can prevent the targeted energy efficiency investments from being achieved.

This project will build upon the capacity and experience generated by previous energy efficiency projects and take the next steps with a specific focus on the buildings market. This will be done by addressing the needs of central government and of the municipalities in this field, as well as new end-user groups such as owners or managers of private residential and service sector buildings.



What is the European Energy Performance in Buildings Directive (EU-EPBD)?

The Energy Performance of Buildings Directive (EPBD), first published in 2002, is a key part of the EU policy on energy efficiency. With the adoption of the revised EPBD in 2010 (Directive 2010/31/EU), EU Member States faced tougher challenges. Foremost among them, moving towards new and retrofitted nearly-zero energy buildings by 2020 (2018 in the case of Public buildings), and the application of a cost-optimal methodology for setting minimum requirements.

The project targets public buildings (administrative offices, schools, hospitals) and residential buildings (single family houses, block of flats, residential complexes).

How to achieve project objectives?

The project will be carried out in 2 phases to ensure successful completion of project goals:

Phase A: Research, Analysis and Preparatory Work

- Development of a strategy on energy efficiency in buildings.
- İmprovement of secondary legislation, building codes and standards.

Phase B: Capacity Building

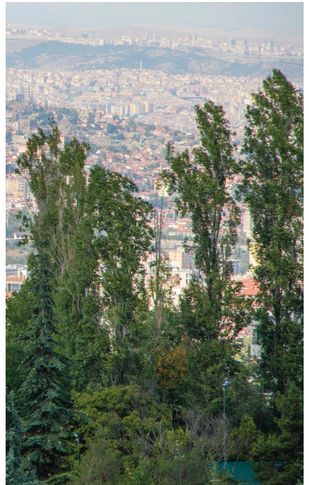
- Provision of tools and instruments to support the enforcement of regulation.
- Training and awareness raising.

The project activities:

- Analysis of the current situation on Energy Efficiency in Buildings in Turkey
- Development human resources strategy to support implementation of Building Energy Performance (BEP)
- Drafting of a strategy for implementing improvements in BEP
- Developing collaborations with key partners (Ministries, Banks, Utilities, Municipalities and so on).
- Development of definitions of various 'typical buildings' and setting up of a building data inventory
- Developing a simple energy performance simulation tool for assessment of life time economic energy performance of buildings
- Arranging workshops on energy efficiency in buildings, training sessions, regional seminars, study visits and participation in international conferences
- Conducting research on potential energy savings and identifying sources of financial support
- Organising a competition on energy efficiency in buildings for architecture and engineering students.

The project will have an important impact on:

- Improving secondary building legislation and regulation in line with EU Directive requirements and contributing to achieve national energy and emission saving targets,
- Enhancing the powers of institutions responsible for the efficient enforcement of the improved regulation,
- Fostering communication and cooperation between public and private organisations working in the field of energy efficiency in buildings,
- Promoting public and private sector financing schemes and identifying international funding sources.



The stakeholders and interest groups to be affected by the results of this project:

- Ministry of Environment and Urbanisation
- All the Relevant Ministries
- Municipalities and Regional Administrations
- Turkish Standards Institute (TSE)
- Housing Development Administration of Turkey (TOKI)
- Banks of Provinces
- Professional Chambers
- Trade and Industry Chambers
- NGOs
- Energy Service Companies (ESCOs)
- National and local media
- Tenants and home owners
- Universities