



Inserting Energy Efficiency into Turkey' Energy Policy

**For more jobs, less energy imports,
less pollutions!**

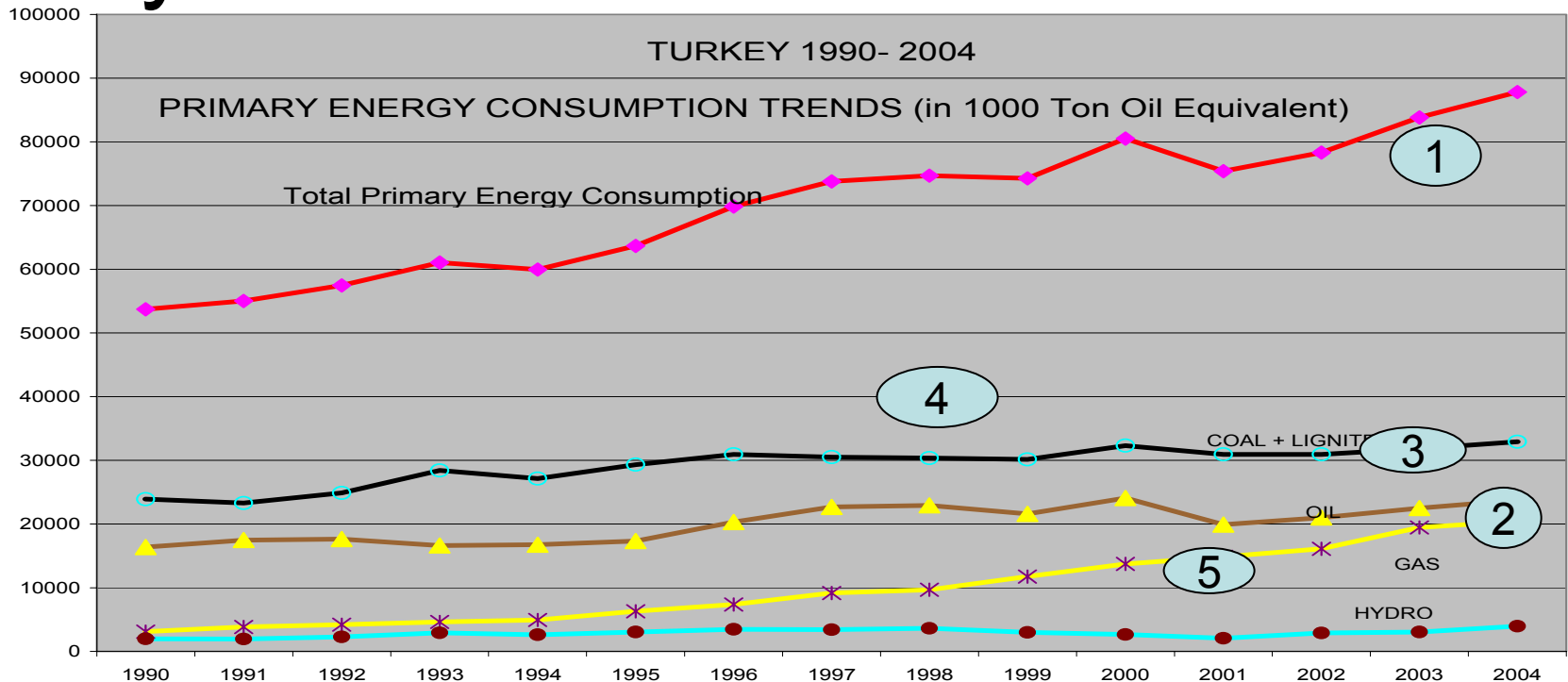
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Twinning project “ Improvement of Energy Efficiency in Turkey”

Turkey' energy consumption:

Key recent trends

(Source:EIE EE Indicators data base in progress)



1. Steady increase of total consumption
2. Gas: expanding networks, fast increase of its share in power & heating
3. Oil: increase due to increase of motor vehicle fuels
4. Coal & lignite: decrease for heating, redeveloping for power ?
5. Hydropower : limited share, useful for peak load supply

Key Factors affecting Energy uses in Turkey 1/2

- Gas: Extension & continuing substitution in industry, power generation, heating
- Less inflation → strong growth of building sectors → steel + cement + bricks + glass, all energy intensive industries.....
- ... then gas for space heating, but gas prices increase....

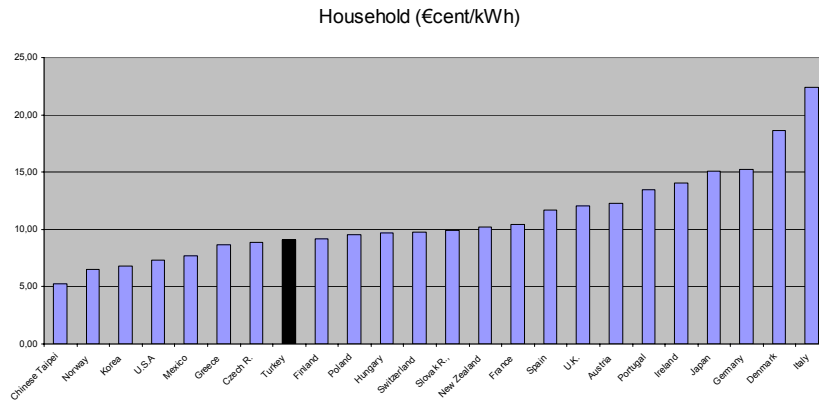


Key Factors affecting Energy uses in Turkey 2/2

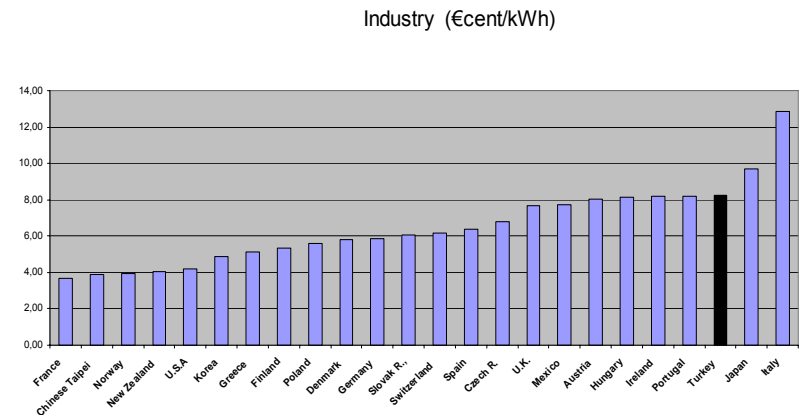
- Fast changes in urban patterns and ways of life
- Fast increasing number of cars in urban traffic (1 or 2 persons for 1ton car) → steel, fuels for running
- Unbalance & stagnation of electricity tariffs: no change since end 2002.



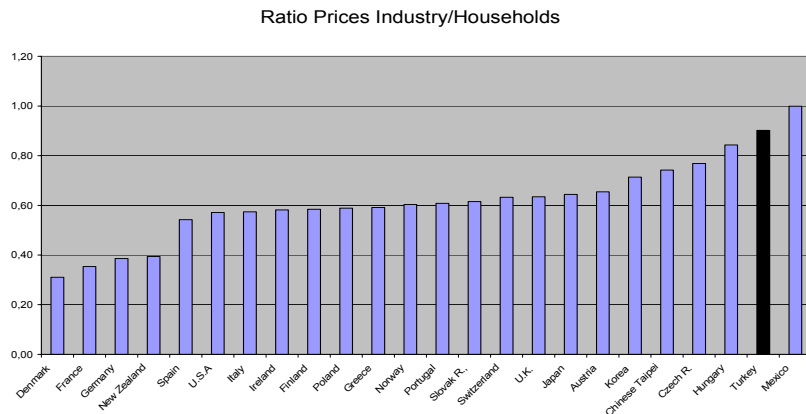
Prices of electricity in Turkey & OCDE countries



Households: in the low range



Industry: among the highest prices



High Ratio of Prices Industry/Households

Reform of tariffs will come soon or later...

Key areas for realising energy saving potentials:

1- Industry & power sectors

- Even more Training of Energy Managers in Medium & SMEs, via KOSGEB + EIE + +
- **Auditing programme & investment support**
- Opening options for combined heat & power, for all new gas distribution projects & for organised Industrial zones
- Increasing involvement in applied RDT

Key areas for realising energy saving potentials

2a - Building sector, specific issues

Kars: very cold winter, too thin insulation

- Wide range of Climates
- Weakness of ownership law about decision making, investment & management
- Owner & tenant are sharing benefits
- Lack of metering & control
- Lack of monitored buildings for references



In Ankara, a rare thermal rehabilitation



Key areas for realising energy saving potentials

2b Building sector: open options

- Developing **indexed heating contracts** for residential buildings (gas price, degree-days ...)
- **Auditing programmes and financing support**
- Development & Promotion of simple financing tools for thermal rehabilitation of existing buildings (incl. external insulation, metering, regulation, collective solar thermal...)
- Increasing the requirements for thermal insulation of new buildings (TS825, to be revised)
- Adapting EPBD Energy Performance of Buildings Directive
- Awareness about energy labels & use of appliances
- Reform of tariffs (kVA component, time of use...) including financial supporting mechanisms for a transition period

Key areas for realising energy saving potentials

2c Building sector : why pushing?

- Most Materials are produced in Turkey.
- Construction & Rehabilitation works are making local jobs
- Energy efficiency means: less gas used, less value leaving the building, the city, province, country, less pollutions.
- As buildings have a long life, it is better to anticipate even higher oil & gas prices
- Present growth of power demand, over 7%/year requires huge investments with high imports

3: Transport sector & fuel taxation issue

- Gasoline & diesel taxation: TR > every of EU25
- These taxes makes 1/5 of Turkey's budget
- More cars, more fuel sold, better national budget! Air pollution is increasing.
- Therefore a financial mechanism should **counterbalance** this environment destructive trend.
- A part of fuel taxes could support EE in transport (modal shift to public & cleaner modes, fuel efficient vehicles & ecodriving), at municipal level, for environmental reasons
- Anticipation is a must: urban planners should bring jobs, homes & recreation places closer, and...
- plan & build in advance public transport infrastructures

EU may support EE in Turkey: programmes, projects, events, loans

- Research Development & Technology 7th Framework programme (Turkey member)
- Intelligent Energy for Europe: TR may join
- EE-Financing facility: EUC+KfW +ECouncil bank
- *Motor Challenge* project for EE motors
- Energy performance of Buildings platform: Turkey has been accepted to join partners
- *ManagEnergy*: Information services for Local & Regional Energy actors
- *Display* of energy performance of buildings
- Etc ...see www.ec.europa.eu/energy

Coming soon to Turkey?

- Certificate of Energy Performance of Buildings

Audit & Display of performance of buildings

Diagnostic de performance énergétique – logement (6.1)			
N° : Valable jusqu'au : Type de bâtiment : Année de construction : Surface habitable : Adresse :		Date : Diagnosticteur : Signature :	
Propriétaire : Nom : Adresse :		Propriét. des installations communes (s'il y a lieu) : Nom : Adresse :	
Consommations annuelles par énergie			
	Consommations en énergies finales	Consommations en énergie primaire	Frais annuels d'énergie
	détail par énergie et par usage en kWh _{ep}	détail par usage en kWh _{ep}	
Chauffage	kWh _{ep}	kWh _{ep}	€
Eau chaude sanitaire	kWh _{ep}	kWh _{ep}	€
Refroidissement	kWh _{ep}	kWh _{ep}	€
CONSUMMATION D'ÉNERGIE POUR LES USAGES RECENSES	kWh _{ep}	kWh _{ep}	€

Les consommations énergétiques, les émissions de gaz à effet de serre et les coûts indiqués ci-dessous sont obtenus par la méthode , version , prix moyens indexés à la date du

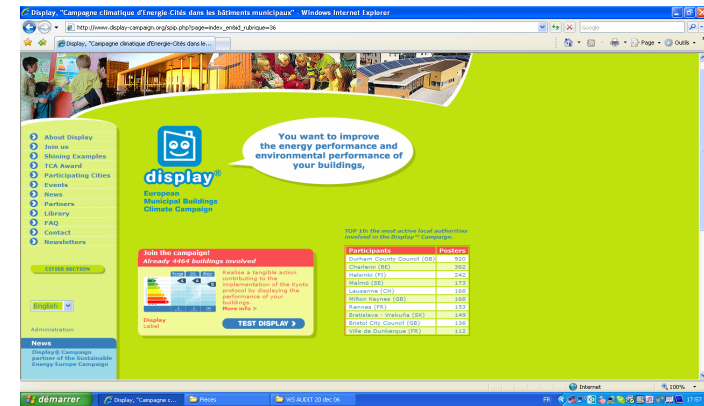
Consommations énergétiques (en énergie primaire) pour le chauffage, la production d'eau chaude sanitaire et le refroidissement		Émissions de gaz à effet de serre (GES) pour le chauffage, la production d'eau chaude sanitaire et le refroidissement	
Consommation conventionnelle :	kWh _{ep} /m ² .an	Estimation des émissions :	kg eqCO ₂ /m ² .an

Logement économe

Logement énergivore

Faible émission de GES

Forte émission de GES



Or even more pollution ?



Thank, Teşekkürler, Danke, Merci

