### GENERAL DIRECTORATE OF ENERGY AFFAIRS

### WHAT ENERGY MIX for TURKEY in 2030

Dr. Zafer DEMİRCAN General Manager of Energy Affairs

- → Energy policy based on
  - →Good analytics
  - → Defined procedures
  - →Well-trained personnel
  - → Engaging all stakeholders

#### → Weekly Reports

- → Dünya Enerji Görünümü (Weekly) Weekly news letter
- → Enerji ve İklim (Weekly) 10 day and 6 months forecasts of weather events
- → Enerji İstatistik Bülteni (Weekly) Weekly statistics for coal, oil products, natural gas, prices etc.
- → Electricity Report
- → Natural Gas Report
- → Water Report

#### → Monthly Reports

- → Aylık Enerji İstatistikleri (Monthly Energy Statistics)
- → Aylık Elektrik Üretim Yatırım İstatistikleri (Installed capacity progress in detail)

#### → Forecasts

- → 10 day forecasts (every weekday)
- → Long term forecasts (updated every month)
- → Price forecasts based on international sources (monthly)

# Why hunger for Electricity?



entso@

Why nations fail?

Daron Acemoğlu & James Robinson

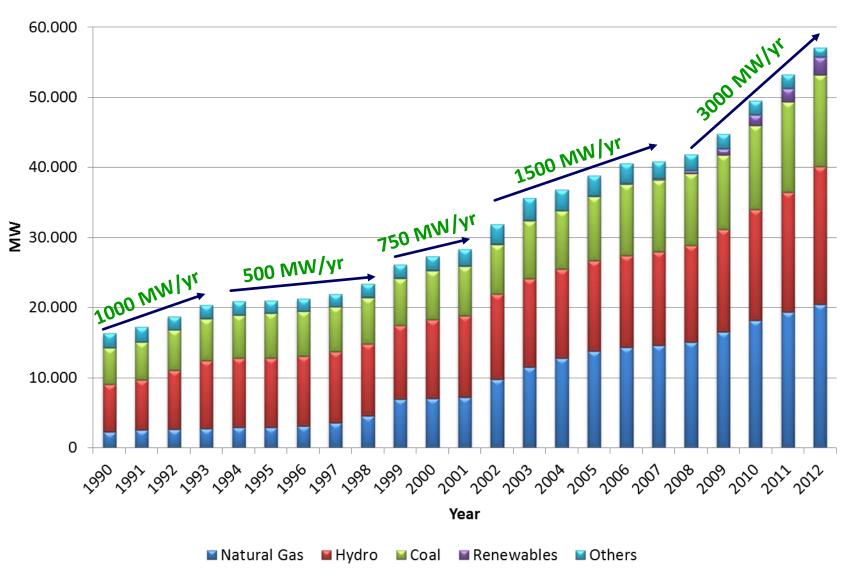
Rail roads - 1870

ENTSO-E Map – 2012 (TEİAŞ has one of the largest grid networks in Europe)



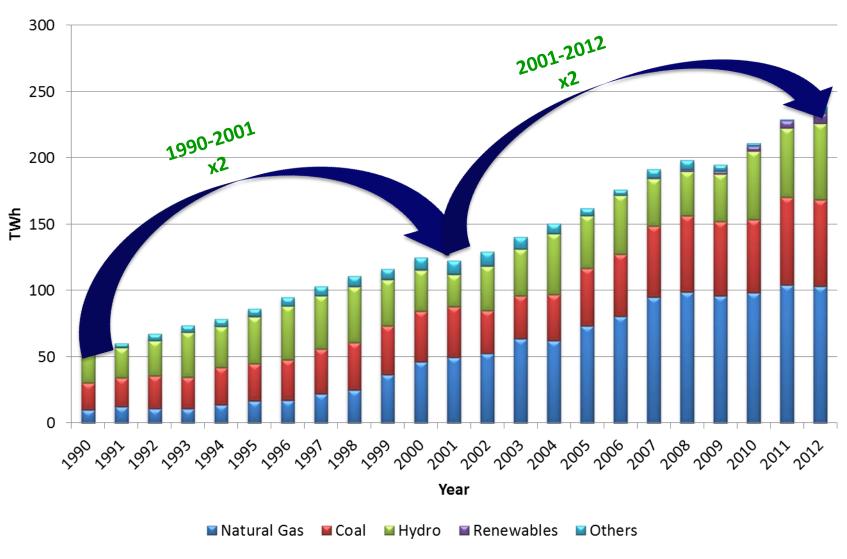


### Installed Capacity by Resources between 1990-2012



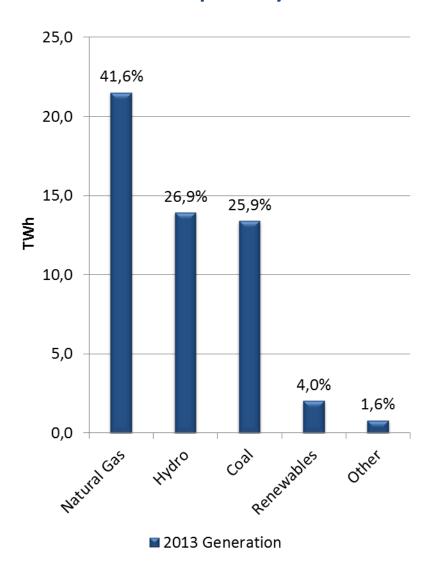


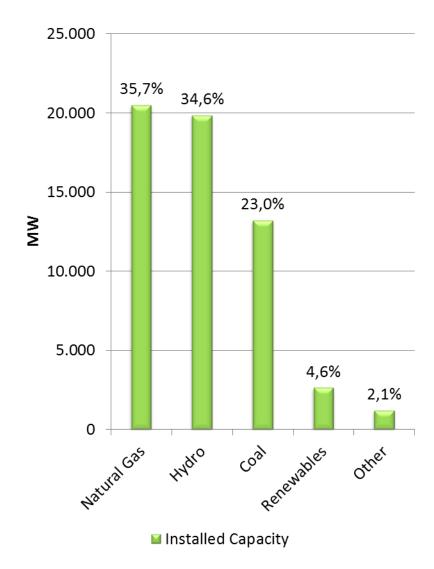
# Development of Turkey's Annual Electricity Generation by Primary Energy Resources





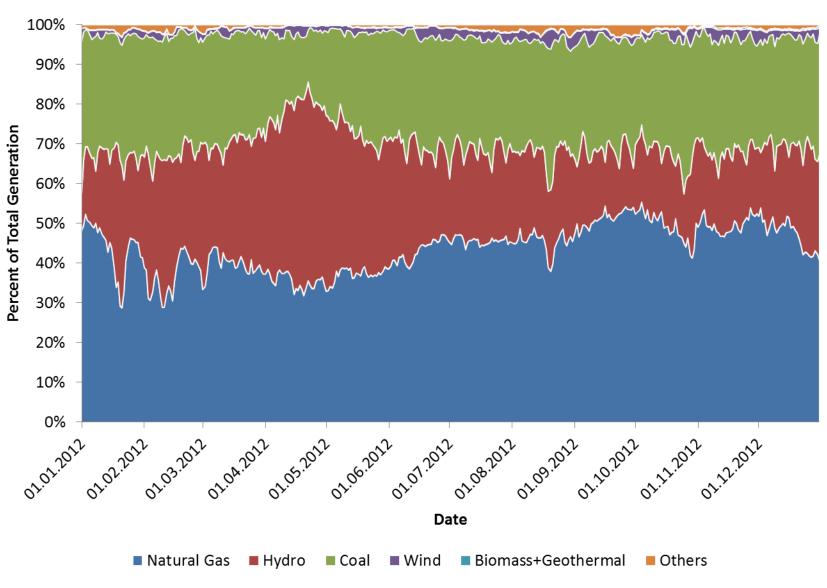
## Electricity Generation By Primary Energy Resources and Installed Capacity as of March 20, 2013





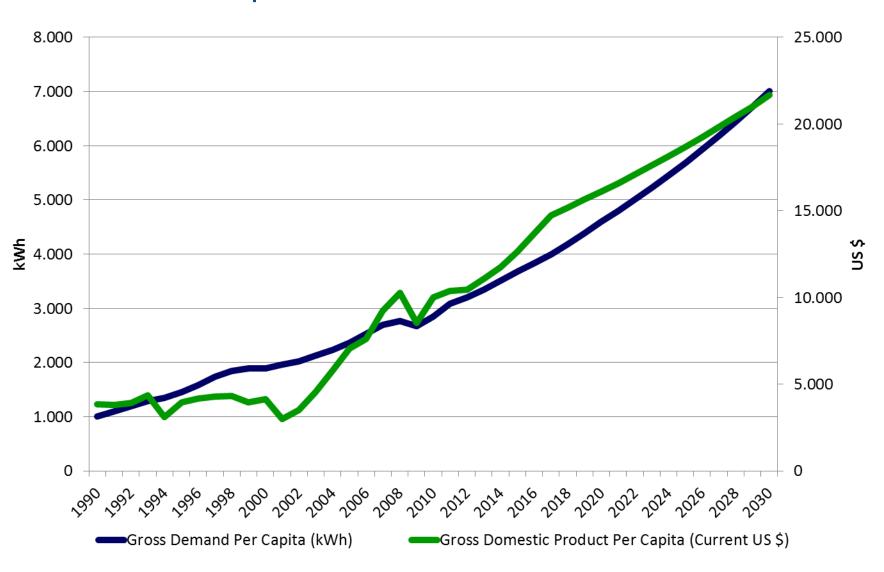


### Daily Electricity Generation by Resources in 2012





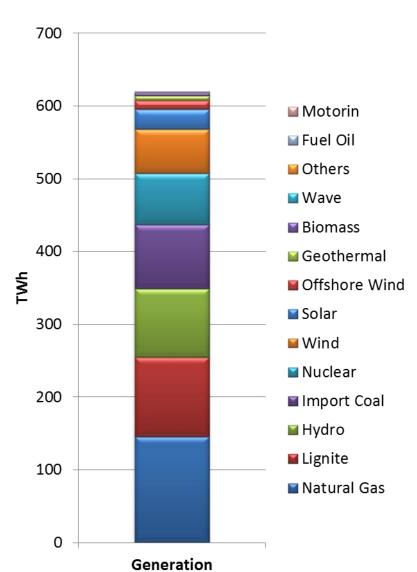
# Gross Electricity Demand Per Capita & Gross Domestic Product Per Capita



Source: TUIK, GDEA, IMF



### Yearly Electricity Generation by Resources in 2030

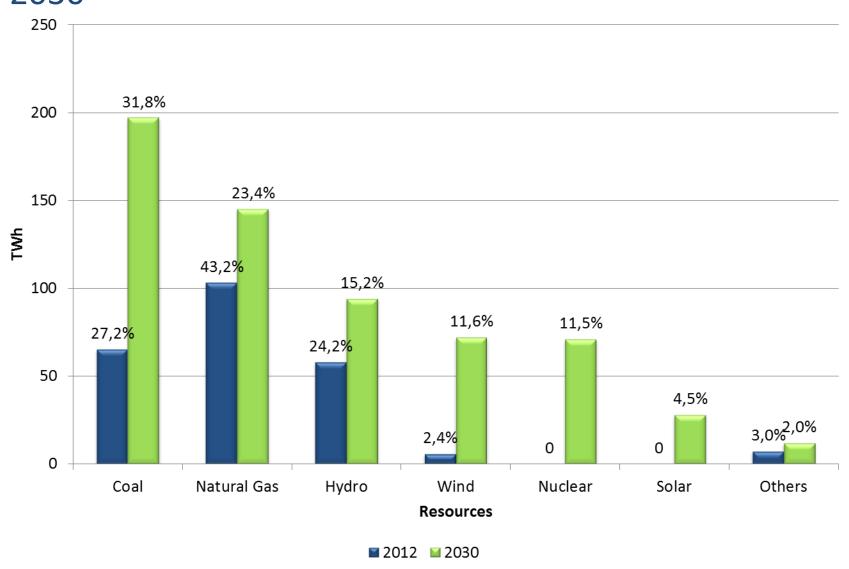


Resource	TWh	%
Coal	197	32
Natural Gas	145	23
Hydro	94	15
Wind	72	12
Nuclear	71	11
Solar	28	5
Others	12	2
Total	619	100

Source: GDEA - Scenario FWS

#### G D E A

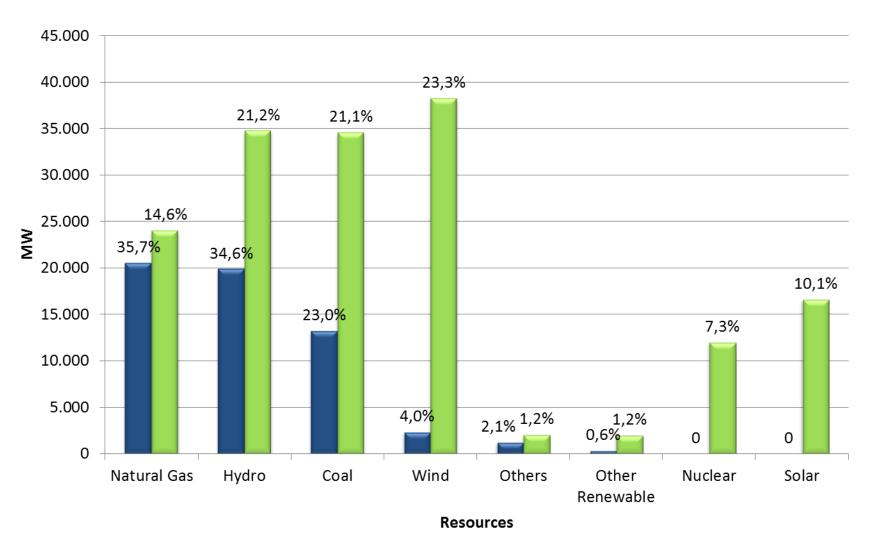
### Yearly Electricity Generation by Resources in 2012 and 2030



Source: TEIAS, GDEA



### Installed Capacity by Resources in 2013\* and 2030

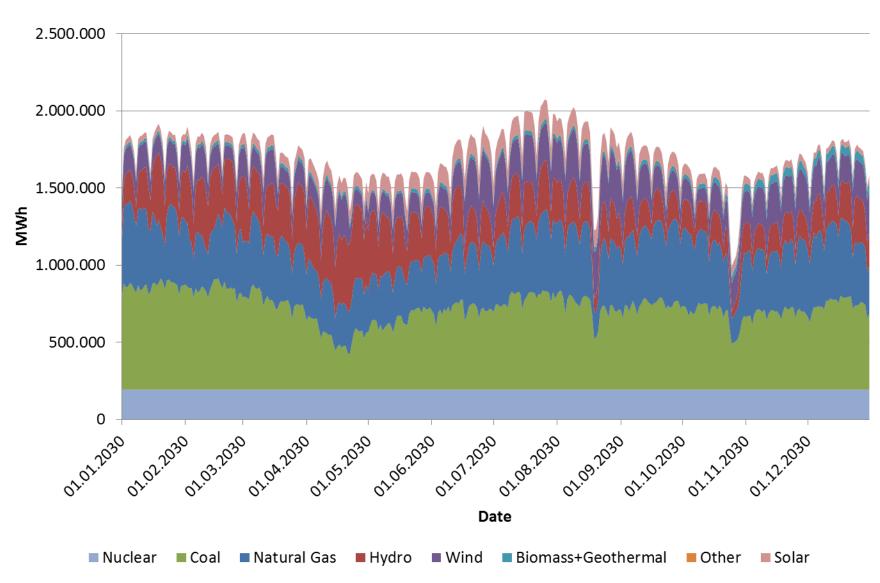


**■** 2013 **■** 2030

Source: TEIAS, GDEA \*: As of March 20, 2013



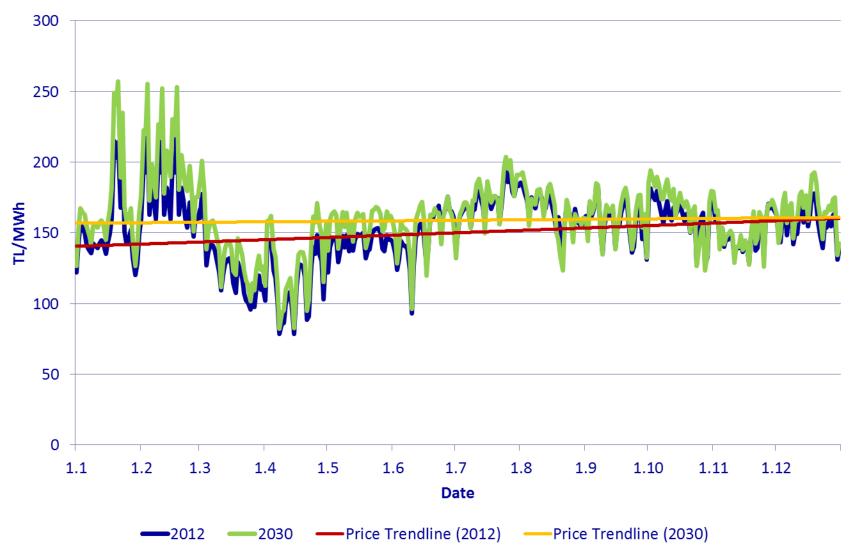
### Daily Generation Projection by Resources in 2030



Source: GDEA



# Comparision between Daily Weighted Average Market Exchange Prices in 2012 and 2030



Source: GDEA \*: Abnormal price spikes are dismissed.



### Enerji İşleri Genel Müdürlüğü

**General Directorate of Energy Affairs** 

#### **THANK YOU!**

For Projection and Graphs: Engin İLSEVEN, Özgür SARHAN