

TIREC 2010 – Accelerating Turkey’s Clean Energy Development

Good Morning, Ladies and Gentlemen.

I will start this morning with global climate change and regional energy challenges, and then turn to Turkey’s renewable energy program and its prospects. And as the World Bank representative I am going to talk a bit about policy.

Climate Change

Global climate change means more droughts, floods, storms, and heat waves. By century’s end, climate change could lead to warming of 5°C or more compared with preindustrial times. Even our best efforts will likely stabilize temperatures at best around 2°C or a bit more above preindustrial temperatures.

Such warming will require substantial adaptation. Especially in countries like Turkey – Turkey is among the countries most likely to experience the greatest increases in climate extremes.

The time for climate change action is now.

- We in the World Bank urge international leaders to reach an international agreement on meaningful climate change action in Cancun, including on financing. Waiting would be easy, but waiting would hurt all of us.
- **The World Bank has recently assessed the outlook for energy in Eastern Europe and Central Asia (the report is available on our website).** I would like to highlight some main findings that emerge from the analysis:
 1. The 2008-2009 global recession created some breathing room and a window of opportunity to mitigate the impact of the anticipated energy crunch.
 2. But the medium-term energy outlook is *not* bright; the energy forecast is not sunny; in fact there is a potential for stormy weather.
 3. Significant investments will be required, estimated at about 3 percent of cumulative GDP over 2010-2030.
 4. The public sector alone won’t be able to provide this level of investments. Private sector participation is essential.

Countries need to take action now. **The challenge for countries in Eastern Europe and Central Asia is to respond and act now to create an attractive climate for investments in the energy sector.**

- **Now is also the time for action in Turkey.** Turkey is one of the three countries in Eastern Europe and Central Asia most likely to experience the greatest increases in climate extremes. [Russia and Albania are the other 2]
- Today's economy is energy relatively inefficient and carbon intensive.
- There are many ways to reduce greenhouse gases emissions that also have significant co-benefits in energy security, job creation, public health, environmental sustainability, and financial savings.
- **Energy conservation and renewable energy development are two such ways to reduce carbon emissions and mitigate climate change that are cost effective and can create jobs.**
- And renewable energy development – the topic of the Turkey International Renewable Energy Congress 2010 – and energy conservation are the focus of Turkey's energy and climate change strategies.

Turkey's Energy and Climate Change Strategies

Overall, Turkey's energy and emission indicators — *still* — compare “favorably” with the upper middle-income country group and the Euro area country group. However, the growth in emissions has been rapid and much greater than in the upper middle-income countries or Euro area. **Turkey's challenge is to take effective measures to moderate this rapid growth of emissions. ...**

... And Turkey already has three major strategic programs in the energy sector that have begun moving Turkey towards a low carbon energy sector:

1. The increased use of natural gas has contained the use of coal and lignite.
2. The enactment of the Renewable Energy Law in 2005 led to successful efforts to attract the private sector into renewable energy development. And:
3. The energy efficiency law of 2007 and subsequent regulations promote energy conservation.

Now Turkey is *stepping up* its engagement on climate change internationally and domestically.

Turkey has ratified the *Kyoto Protocol* and has *joined the international climate change negotiations*.

In May 2010, the Government approved a National Climate Change Strategy. The Strategy identifies national priorities for mitigating Greenhouse Gas (GHG) emissions and building resilience through managing adverse effects and encouraging mitigation and adaptation to climate change. Under the Strategy, Turkey's mitigation activities have a focus on energy. This focus is appropriate, because energy production and use account for more than $\frac{3}{4}$ of Turkey's emissions.

The forthcoming National Climate Change *Action Plan* is expected to provide priorities for transport, industry, waste, land use, agriculture and forestry. We in the World Bank greatly welcome the Government's preparation of this **Action Plan**.

Renewable Energy

Renewable Energy development is a key component in Turkey's energy and climate change strategies.

Currently most of the major Turkish commercial and development banks invest in renewable energy projects.

And the World Bank is financing renewable energy in Turkey as well. Already several \$100 million, and more is on the way. As part of our partnership with Turkey on renewable energy and energy more broadly Turkey last year became the first country worldwide to benefit from the CTF established by 12 donors and administered by the WB.

Starting with wind power, a road map for receiving and evaluating applications for wind power plants and issuing the related licenses has been issued. A wind energy grid code has been finalized. Hundreds of license applications have been received, more are expected, and licenses are being issued.

The Government projects 20,000 MW wind capacity by 2023. Though ambitious, this is a realistic target – provided, especially, TEIAS capacity. Our assessment in the World Bank is that the pace of renewable energy development in Turkey will depend critically on the capacity of the transmission system and electricity market operator TEIAS to absorb the

decentralized and (in the case of wind and solar) intermittent renewable energy quickly and effectively.

The Government is preparing an amendment of the Renewable Energy Law, including technology-based support prices and firm off-take arrangements for biomass and solar power – technologies that need significantly higher feed-in tariffs than current prices in Turkey’s electricity market. In the near future, the major contribution of renewable energy into Turkey's power system will likely come from hydro and wind energy. However, the Renewable Energy Law Amendment that is being considered will be crucial for the medium term, so that, as the currently more attractive hydro and wind potential is being exploited, Turkey can then be ready to continue the renewable energy path with **biomass and solar in particular.** Even though Turkey is the first country in Europe that uses solar energy for heating (e.g. water heating) on a wide scale, the large potential for use of heat from renewable has yet to be effectively utilized—and the planned Renewable Energy Law Amendment will help.

I will wrap up with the following three **conclusions:**

First, renewable energy will continue to be a major strategic policy issue in Turkey. I have highlighted two areas: (1) improving the operational capacity and financial strength of **TEİAŞ** to absorb renewable energy quickly and effectively; and (2) the **Renewable Energy Law amendment.**

Second, addressing the challenges in renewable energy and energy efficiency is essential, it is because of energy security and environmental and climate change benefits, also important because of the **major opportunities—in a big way—for business, economic development, and jobs—yes, jobs!**

Third, Turkey has made major strides in energy policy and reforms, and in attracting private sector investments. **The next step will be the preparation and approval of the National Climate Change Action Plan by early 2011.**

We in the World Bank have been a partner with Turkey in the energy sector for many years, and we support Turkey’s national energy and climate change strategies. We look forward to continuing our strong partnership.

Thank you. Çok teşekkür ederim.