# Power supply expansion issues for Turkey

Turkey needs increased investment in new generation capacity based on indigenous resources to meet rising demand but local investor behaviour and so-called license trading is blocking capacity additions. A new electricity market law could help address these issues.

The state transmission company TEIAS, which publishes capacity projections for the decade ahead, has been warning of a supply shortage for a long time. Judging from the numbers announced by the regulatory authority EMRA, those warnings might have attracted some attention: more than 80 GW of new capacity is either licensed or is under review for licensing as of the end of 2012.

Considering the fact that the maximum time allowed for the investors to complete their investments is about five-eight years, and assuming that all those applications are granted licenses, this would imply the commissioning of around 10-16 GW per year, which seems highly unlikely for a market with a track record of an average of 2.2 GW per year since 2000 and an average of 4 GW/year for the past three years. The ongoing liberalization and increased merchant opportunities will surely boost new capacity additions number, but it seems inevitable that some of these projects will fall by the wayside.

The current Electricity Market Law allows investors to apply for generation licenses freely, subject to holding the usage rights for the resource in question. For imported hydrocarbons like natural gas and steam coal, a developer can simply select a suitable location and apply for a license. For the rights to develop hydro, wind, and indigenous coal-fired capacity, apart from some concessionary examples, a developer has to enter a competitive bidding process.

State institutions like DSI (for water usage rights), TEIAS (for grid connection of wind plants) and TKI (for lignite resources) hold tenders for these strategic resources based on a contribution fee model, but what has been observed are aggressive bids from investors that lock-up these projects with unfeasible or barely feasible projections. Any renewable or local resource incentives are easily cashed-out with high resulting contribution fee offers.

To give some examples, a local lignite area tender resulted in a winning bid of $0.031/kWh, a wind project was won with $0.036/kWh, and we have seen prices of over $0.045/kWh for some hydro projects. If you consider that the average spot market price was around $0.065/kWh in 2011, these numbers actually endanger the feasibility of these projects. The competition means more state benefits, and there is a mechanism to revoke the rights if certain conditions are not met, but the result is that more and more projects are being delayed and valuable years lost for a generation system that is highly dependent on imported hydrocarbons, with the reserve margin calculated from actual available capacity almost drying up during peak demand seasons.

**Selected projects with high bids in state tenders**

| Resource | Installed Capacity | Location | Fee $/MWh |
|---|---|---|---|
| Lignite | 270MW | Bursa | 32.9 |
| Lignite | 450MW | Manisa | 27.5 |
| Wind | 50MW | Izmir | 34.1 |
| Wind | 78MW | Canakkale | 36.0 |
| Wind | 72MW | Antakya | 42.3 |
| Hydro | 350MW | Ardahan | 38.1 |
| Hydro | 59MW | Artvin | 68.2 |
| Hydro | 187MW | Antalya | 72.6 |

Note: Where applicable, figures are escalated to 2013 as explained in the related legislation. Base offtake guarantee within the Renewable Energy Law for wind and hydro projects is $0.073/kWh.

Source: TEIAS, DSI, TKI

We believe one of the reasons behind such aggressive bids may be the possibility of “license trade”. That is, securing a license at a government tender and selling the shares of the holding company to an “actual” investor without investing a dime. This brings non-industry investors to the race, risking all to reserve a resource even if this is done at a questionable cost. The current regulations fall short of limiting who can enter these tenders and how these projects are monitored.

A draft market law, which was sent to parliament in December 2012, might bring about some new rules for these investors, but whether it will free-up these projects or merely see them change hands with little improvement in feasibility is open to question.

The new market law, if enacted as proposed, would introduce some measures to keep these projects under a tight leash and ultimately aims to stop “license trading”, including most notably the award of a pre-license for a period of up to 24 months, during which time license applicants would need to secure all the necessary permits. According to the draft law, all license applications as of the publishing date of the law would be evaluated as pre-license applications, all current license holders who have not yet started construction will receive a pre-license and their existing licenses will be cancelled, while all current license holders can apply to EMRA within a month of the publishing date of the law to have their licenses cancelled without losing their performance bonds, and last but not least, no change of control is allowed in the pre-license holder companies, except for reasons of inheritance or bankruptcy.

If the new law passes, we expect a wave of license cancellations, turn overs, new tenders, and eventually new owners. Those projects with questionable contribution fees will find themselves in a difficult situation, unless they have actually started construction. Hence, we expect 2013 to bring more clarity on the clouded issue of supply expansion in the Turkish electricity market.

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