MARKET UPDATE

Turkey | Utilities | 05 September 2014

Turkish Power Producers

Power Cut! Stock picking matters

After a sluggish 2013 (-0.2% power production growth vs. 4% GDP growth), conditions in the Turkish power production market seem challenging despite moderate boosts in demand (3.5% YoY in 6M14) and spot prices (8.7% YoY in 6M14). Although large flexible thermal-based assets are benefitting from recovering demand and extended droughts, companies with well-diversified asset bases appear best positioned in the medium- to long-term. In this context, we reiterate our Buy rating on Aksa Enerji (FV decreased to TRY 3.10) and downgrade Ayen Enerji to Neutral (FV decreased to TRY 1.56). Aksa Enerji remains our top pick as we believe its asset base, efforts to capture a share in the highly profitable retail segment and its vertical integration mean it is well positioned to benefit from market dynamics in the short- to medium-term.

Company	(Ticker)	Rating
Price	Mkt Cap	Fair Value
Aksa Enerji	**(AKSEN TI)**	**Buy**
TRY2.77	USD790m/TRY1.7bn	TRY3.10
Ayen Enerji	**(AYEN TI)**	**Neutral**
TRY1.55	USD123m/TRY265m	TRY1.56

All share price data as at close on 4-Sep-2014.

Source: Global Securities, Company Data, Bloomberg

Drought benefits large thermal assets

Following a dry autumn and winter, Turkey has seen its hottest summer in 53 years in 2014. As a result, the share of hydro in total generation shrunk to 22.1% (6M14 figure) from 30.7% in 6M2013. Increasing demand and a higher share of thermal assets led to an 8.7% hike in spot market prices over 6M14. Thus, power companies with large, flexible asset bases (e.g., AKSEN) have benefited from the drought whereas renewables-abundant producers (especially those without reservoir capacity) have performed below expectations in terms of financials.

Retail market capture is crucial

There continues to be limited awareness among Turkish households of their right to purchase electricity at discounted tariffs (c.TRY 180 for households vs. c.TRY 160/MW in the spot market). This is reflected in a high theoretical but low operational market openness ratio. The retail market is highly profitable for power producers. Aksa Enerji is one of a few producers aggressively advertising to capture share in this market.

The outlook is challenging in Turkey

Given on-going nuclear discussions and pipeline investments (7,991MW are 80% completed out of 52,320MW in the pipeline), the electricity generation market will likely face an oversupply problem and/or lower prospective CUR. This is likely to put pressure on prices, especially in the spot market. Thus we expect well diversified asset bases to be best positioned in the long term. We believe Aksa Enerji's lignite investment will reduce its average generation costs and enhance its base load capacity.

All vulnerable to TRY depreciation

Turkish power producers are heavily indebted following periods of heavy investment with avg. net debt/EBITDA of 14.1x as of 2013YE. This is unlikely to reverse in the short term and we calculate any 1% TL depreciation to have an average 5-10% negative impact on power producers' bottom line.

Aksa Enerji stands out with high foreign share in free float

Apart from Aksa Enerji (almost 50% foreign share in free float), Turkish power producers (both under coverage and not) have low foreign ownership. Moreover, they all have low trading volumes, which reduce their attractiveness to foreign institutional investors, especially during volatile periods. Thus any local news flow has the potential to lead to significant share price volatility.

Analyst

Sercan Uzun
+90 850 201 94 88
sercanu@global.com.tr
Global Menkul Degerler

Research contact for general inquiry

+90 212 244 55 66
research@global.com.tr
www.global.com.tr

Rıhtım Cad. No:51
Karakoy 34425 – Istanbul
Global Menkul Degerler

Outlook for Turkish electricity market

Installed capacity, generation, and consumption

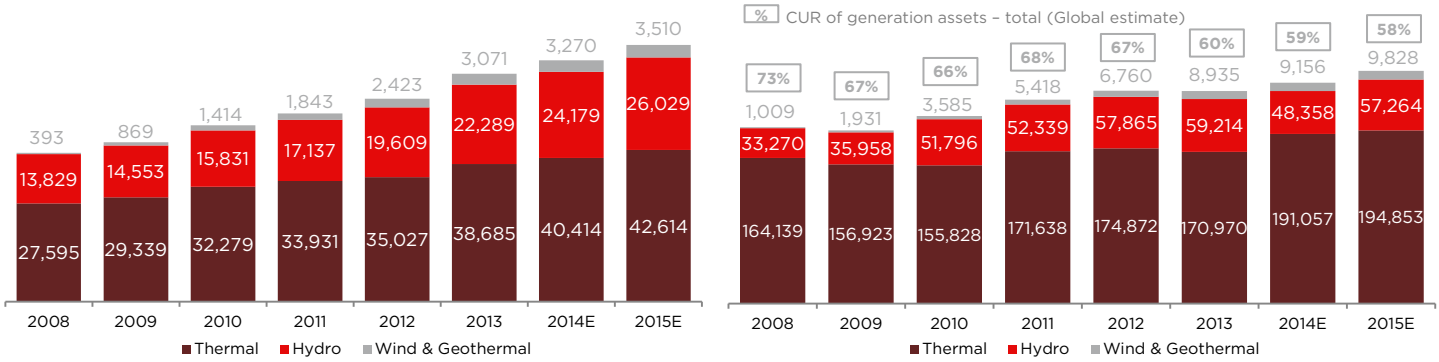
As the energy sector in Turkey continues to move towards a fully competitive market, the sector is attracting growing private investment. Since 2001, the state has undertaken only maintenance and rehabilitation investment for its generation assets while leaving the private sector to invest in new facilities. Thus the increase in installed capacity since 2001 (from 28TW to 64TW) stems solely from private investment. Although much of the expected investment in the energy sector has already occurred in anticipation of future growth, we believe more investment in the energy sector is still to come. In addition, upgrades to Turkey's investment ratings, liberalization and increasing demand for energy ought to spur increased investment and competition.

At the end of 2013, total installed capacity in Turkey stood at 64.044MW with natural gas power plants accounting for 52.4% of thermal and 31.7% of total installed capacity. In the period of Turkey's rapid industrialization and urbanization since the late 80's, natural gas power plants emerged most quickly as they are less costly and time consuming to build and hence were most suitable to accommodate Turkey's rapid demand growth. Moreover, since Turkey does not have extensive natural gas storage locations and given the previous "take or pay" agreements with natural gas exporters, natural gas power plants were constructed en masse to make up for the high sunk cost of raw materials. In recent years, new coal mines have been discovered in Turkey and several state-owned coal mines have been tendered to the private sector. As a result, we expect to see a shift toward coal generation in the medium- to long-term, and we believe thermal installed capacity will remain the main generation source despite a slightly decreasing share due to the rise of nuclear and increasing interest in renewable generation.

In 2013, total electricity generation in Turkey reached 239.1 GWh. Natural gas is still the main generation source in Turkey, with a 43.8% market share, followed by coal with a 25.4% market share at 2013YE. We believe the share of coal will increase, with new coal mines being discovered and existing mines being privatized. Moreover, lignite is cheaper than natural gas, is suitable for base load generation, and will contribute to the easing of CAD pressure. Since the government began encouraging private investment in coal-based generation, 2,270MW of lignite-based power plants have been privatized for a total of US$6.25bn over the last two years. The share of renewables in installed capacity/generation has also increased over the last five years in line with government aims to lessen Turkey's dependence on natural gas imports, which exhibit substantial FX and price volatility (this has occurred despite environmental protests). Furthermore, the government intends to make more use of local and clean sources and offer cheaper electricity by encouraging a move towards increased renewables-based generation.

The Turkish electricity market is characterized by matching levels of consumption and generation. We believe imports, at 3% of total generation, are related to pricing and regional dynamics rather than supply problems.

Figure 1 & 2 Installed capacity by source & Electricity generation by source



Source: Global Securities, TEIAS

The Turkish market is characterized by above-average prices

The Turkish government determines the official tariff on the sales prices of electricity. Although the government says that official tariffs are linked to natural gas prices and other factors such as FX fluctuation, in reality we think the government determines the prices somewhat arbitrarily and uses rulings as a way to sway voters. The tariffs also affect prices of electricity traded in the spot market (25-30% of total). Note that trading in the spot market can be profitable when companies buy at times of the year when hydro power plants are funcitoning and hence prices are depressed due to increased supply (there is typically more rain during the second quarter). They use this electricity to fulfill their bilateral contracts, where prices are set at a discount to official tariffs.

In addition to the impact from high taxes, electricity prices are particularly high in Turkey because the country has limited access to electricity generation sources within its own borders. Thus Turkey is obliged to import large amounts of generation materials, primarily natural gas, from neighboring countries with more abundant "raw materials" for electricity generation. In addition to driving up energy prices, high levels of natural gas imports have historically contributed significantly to Turkey's current account deficit. We do not believe that shale gas and other supposedly cheaper sources (e.g., Azerbaijan or Israel) will have a significant impact on Turkey's average natural gas procurement costs in the medium-term.

Due to government regulations and taxation policies, Turkish industrials have historically paid more than their international peers for electricity, mainly due to a considerable tax burden as well as high loss and theft volumes. Until 2008, households paid less than the international average, but substantial increases in electricity prices in 2008, mainly due to hikes in natural gas prices, meant households also started paying more.

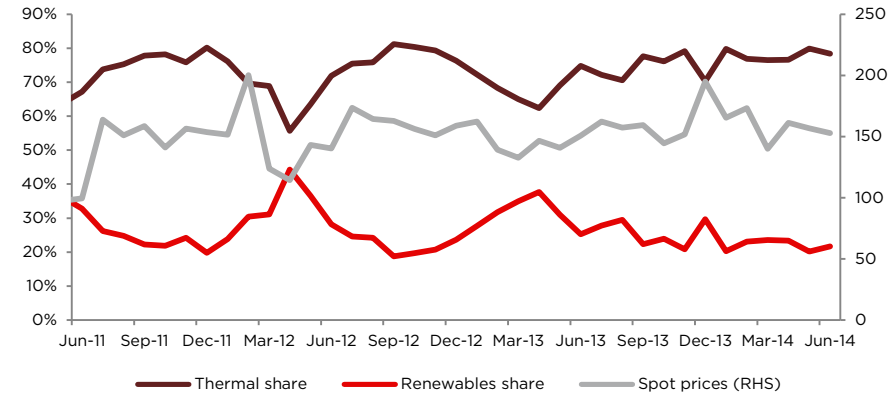
Weather conditions cause price and generation capacity fluctuations

The capacity utilization ratio of renewable power plants depends heavily on weather conditions. In 2014, renewable power plants have generated c.22% (drought impact) of Turkey's energy YtD in 6M14 (vs. c.31% in 6M13). We expect this number to increase gradually to c.35% over the next 10 years. Should overall climate conditions become less favorable for renewables generation, we think investment in renewables could slow, because drought conditions negatively affect hydro power plants. According to recent assessments by the Intergovernmental Panel on Climate Change, higher temperatures and reduced precipitation will increase the occurrence of droughts over the next decade. Further, the average surface temperature of the Middle East is expected to increase by 2.5°C to 5.5°C in the next two

decades, leading to a 20% decrease in rainfall in the region. Prices become more volatile during drought periods, increasing due to the lower supply stemming from a lower CUR for hydro power plants, favoring thermals.

Summer weather conditions drive increased demand for electricity, primariliy to power air conditioning units and irrigation systems. As demand swells during the summer months, spot market prices also rise. The unpredictable nature of year-to-year weather conditions leads to volatile prices in the electricity generation market, particularly during the summer months when increases in demand and decreases in supply engender significant upward momentum. If a company's overall sales portfolio (in terms of megawatts) significantly exceeds its own generation capacity or generation capability (depending on weather conditions and natural gas procurement problems), we believe we are likely to observe margin erosion as the company becomes dependent on third-party procurement. This can become a problem for companies that do not enter into contracts with other generators at the start of the year. As such, they are solely reliant on spot market trades for third-party procurement.

Figure 3 Turkey's monthly generation breakdown and spot prices (TL/MW)

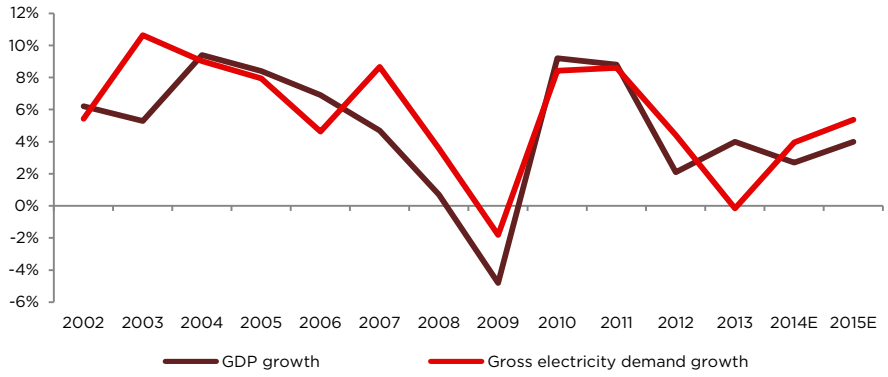


Source: Global Securities, TEIAS

GDP is the main driver for electricity demand

As Turkey is one of the fastest-growing emerging market economies, it exhibits above average growth in energy consumption. Over the last thirty-four years, in the aftermath of the first oil crisis of the 1970's, electricity demand (c.7.7% CAGR) has grown at nearly twice the rate of GDP (c.4%). However, the difference has started to narrow considerably over the past 10 years (5.1% vs. 3.9%).

Figure 4 GDP vs. electricity demand growth



Source: Global Securities, Turkstat, TEIAS

Over the next decade, we expect the annual GDP and electricity demand CAGRs to be c.4% and c.5% respectively. We expect supply and demand dynamics in the Turkish electricity market to be driven in the medium-term by GDP growth, population growth and urbanization. Worldwide, there is a strong a positive correlation between a country's wealth and the electricity used. The Turkish market is not yet fully saturated in terms of electricity usage. Because per capita consumption still stands well below the global average, its rate of electricity demand growth is among the highest worldwide.

Turkey's GDP growth, particularly in the earlier years of its industrialization, was driven primarily by energy-intensive production (manufacturing). As a result, Turkey's energy consumption expanded especially rapidly in this period. Due to its rapid growth, Turkey is now typically classified as a newly industrialized economy. Still, Turkey fares better in energy intensity, a measure of energy efficiency, than many of its peer nations, including many of the more recent EU members. Turkey's energy consumption patterns differ from those of its peers for a variety of reasons. Subsidized energy prices for higher output volumes raise the ratio of total units of energy/GDP in countries such as Russia. In South Africa, a high energy-intensity number stems from its coal-dominant industry (South Africa has the fifth-largest coal fields in the world by area). Although Turkey's GDP per capita is 6% lower than the global average (c.US$9,400), Turkish per capita electricity consumption is c.15% lower than the global average. We believe this is due to Turkey's high energy prices.

In addition to an emphasis on industrialization, Turkey's rapidly growing population and its growing consumer base and workforce are major demand drivers. Over the last thirty-six years, installed capacity per capita has increased by c.700% at a 5.5% CAGR while the gross demand per capita has gone up by c.800% at a 5.9% CAGR. Despite rapidly growing demand for electricity, we do not expect to see supply shortages in the future because many private investors in energy still have low capacity utilization ratios, which they could increase to meet increases in demand. This is thanks to increasing capacity, especially in base load and also planned nuclear power plants.

Urbanization is continuing in Turkey. Because urban life requires a greater amount of electricity use per capita, we expect electricity demand to continue to increase as this migration occurs. Industrial demand still exceeds household demand for electricity; however, over the last 25 years, the share of industrial consumption has shrunk from c.68% of the total to c.45%, in line with Turkey's increasing population, urbanization, and the share of services in its economy. In turn, residential electricity use and urban electricity consumption have increased to c.25% of total consumption from c.16% and to c.16% from c.6%, respectively. We expect the share of combined residential and commercial electricity use to further increase toward c.45% in coming years.

Nuclear generation on the way

Although Turkey does not currently engage in nuclear power generation, worldwide the percentage of electricity generated via this method increased from 3.30% to 13.40% between 1973 and 2009. By 2023, Turkey plans to generate 5% of its electricity from nuclear (9,200 MW total). The Turkish government has talked of establishing nuclear power generation facilities for nearly 40 years and Russian state-owned entities have recently taken a lead role in making nuclear power generation in Turkey a reality. This year, Russian nuclear power holding company Atomenergoprom expects to receive a construction license for a 4800MW nuclear power generation site at Akkuyu (on the Eastern Mediterranean Coast). This would enable the company to start

construction in 2015 or 2016 with the possibility of beginning operations by 2019.

Plans to build a second nuclear power generation site at Sinop (on the northern Black Sea Coast) are also in the works. The Turkish Electricity, Trading and Contracting Company (TETAS) has signed an agreement to purchase and sell 70% of the output from Akkuyu in the open market during its first 15 years of operation. Electricity produced by nuclear power plants will be purchased with a sales guarantee of US$12.35/cent for 15 years. An influx of additional electricity to the Turkish market from nuclear generation would likely lead to oversupply, which could lower the capacity utilization ratio of existing electricity generators and damage revenues for current suppliers. To prepare for nuclear-generated energy to entering the markets, electricity generation companies should diversify their generation sources to include more renewable sources in order to remain competitive.

As competition in the energy sector picks up due to increasing privatization, liberalization, and nuclear generation, it will become increasingly important for electricity generators to increase their profit margins by focusing on diverse and renewable energy sources.

Privatization of electricity generation industry clouds visibility

Electricity generation is currently shifting entirely from government-owned entities to private ventures. The state began stepping back from investments in electricity generation in 2001 and has put its current holdings up for sale. Since 2001, the state has only undertaken maintenance and rehabilitation investments for its generation assets. As of 2013, private generation companies have a 42.8% share in total installed capacity, a considerably higher figure than before the government began pushing for privatization. The private sector's share in renewables should increase substantially once the c.3,700MW state-owned EUAS portfolio is privatized. From 1984-2002, c.80% of electricity was produced by EUAS, but from 2002-2013 the ratio decreased to c.40%. We expect the government's share in electricity generation to continue declining once the on-going privatizations of government generation assets (PF of c.16,000MW) are completed and private producers increase their capacity utilization ratios.

With the state stepping back from investments in electricity generation, private investment has stepped into the void and is currently driving industry expansion. As the number of private producers increases, renewables and local sources such as lignite are becoming more important sources for power plants in Turkey's market. Although the share of renewable-based power plants is continuing to increase, thermal-based power plants still dominate.

Due to tight domestic credit markets, increased regulatory standards and the resistance of locals to the construction of new power plants near their homes, private investments have not yet reached the levels desired by the government in order to fully privatize the industry. Despite less than optimal growth in private investment, we still expect to see renewable and local sources such as lignite (coal) becoming more dominant sources for power plants as a result of increased private investment. Still, given that a vast number of new investments in electricity generation are still in an early stage and are not yet operational, it is difficult to predict how over-saturated the Turkish electricity market will become as new suppliers become operational. A lack of visibility and excessive competition could pose downside risks for current electricity producers.

Table 1 On-going investment by completion percentage

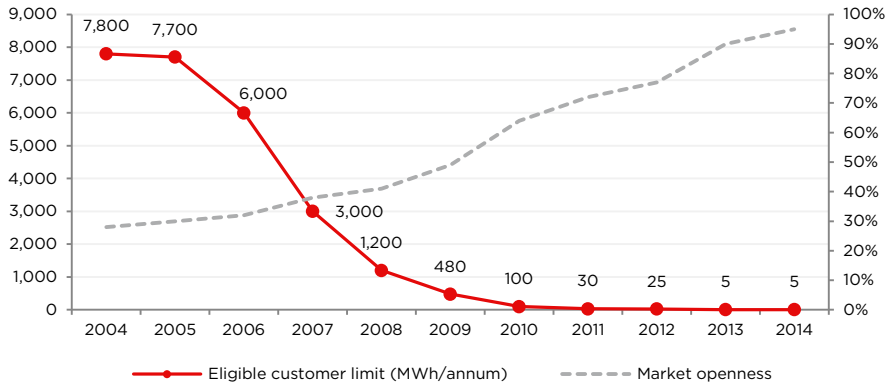
Source	Capacity to be added-MW	Completion Percentage			
		20%	20%-50%	50%-80%	80%
Thermal	31,549	23,047	944	3,546	4,012
Hydro	12,726	6,571	1,117	1,651	3,386
Wind	7,498	6,445	457	186	410
Biomass	133	58	10	0	65
Geothermal	414	221	75	0	117
Total	52,320	36,343	2,604	5,383	7,991

Source: Global Securities, EMRA

Growing awareness of eligible customer limits

In January 2014, Turkey's Energy Market Regulatory Board reduced the eligible customer limit in the electricity market from 5000kWh/yr to 4500kWh/yr. Full liberalization and the removal of the eligible customer limit are expected by 2015. This ruling allows electricity generators to secure bilateral contracts with a larger number of firms. More bilateral contracts, which ensure guaranteed prices paid to generators, benefit firms in the power generation sector. After the law was passed, however, there was a rapid increase in private electricity suppliers, which hoped to capitalize on expanded access to bilateral contracts. Thus, the extent to which the new law will benefit existing electricity generators is still unclear in light of added competition from new firms. Due to the marketing efforts by firms in the industry, awareness has increased about the possible benefits to be derived from the use of bilateral contracts.

Figure 5 Eligible customer limit and theoretical market openness



Source: Global Securities, TEIAS

Sales channels and the DUY Market

There are three main sales channels in the generation market: 1) bilateral agreements; 2) credit derivative contracts; and 3) DUY system (explained below). Bilateral agreements allow companies to sign relatively long-term contracts with pre-determined prices that enable them to secure a fixed bulk of revenue for the agreed-upon period. Pricing in bilateral agreements incorporates a discount from the retail price announced by TEDAS. Thus producers may employ base load generation (with a higher capacity utilization ratio and sales volume) rather than phased generation and secure the bulk of its revenues by creating economies of scale. Specifically for renewable generation, TETAS's purchase guarantee agreement can be applied for newly installed capacity for 10 years. The state set up this incentive in an attempt to encourage private investment in renewables-based generation. However,

private investors can typically agree on more lucrative tariffs with private counterparts through the DUY market.

The DUY market is a spot market in which distribution companies buy electricity and generation companies can both buy and sell electricity. The market matches sellers' and buyers' electricity generation and consumption forecasts every hour with proposed prices to allow electricity trading the day before trades are to be executed. In addition, the DUY market manages hours imbalances via the balancing power market. Transactions through DUY depend on the price level: should prices decrease, generation companies may prefer to be a buyer rather than a seller as the cost of generation may exceed prices in the markets (particularly at night).

The DUY market operates as follows:

- Demand is received in the system without any price indication (each hour).
- Supply is received with the desired price level and volume to be generated by companies (each hour).
- Demand and supply are matched by taking into account not only the price level but also the continuity of electricity provision.
- The system determines a price level and volume to be generated for each hour of the following day and announces the results to participants. The price in the day ahead is called SGOF (system day ahead price).
- Should any imbalances arise the day after (the day during which transactions are realized), the balancing power market intervenes to address any mismatch, this time with the price level called SMF (system marginal price).

Note that speculation in the DUY market has been curbed by a ruling that market participants must make a downpayment based on the volume that they trade. This has bolstered market confidence and transparency.

Electricity derivatives to increase in importance

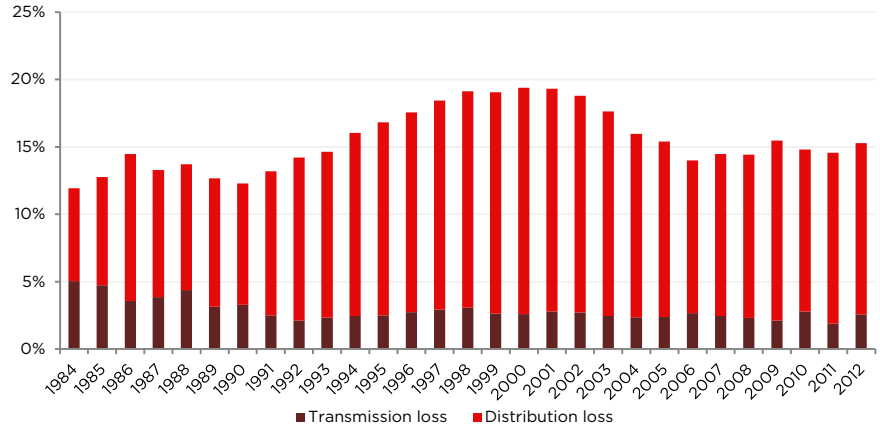
Derivatives came into use in Turkey's electricity generation market in 2011 with the goal of enhancing transparency and price predictability in the market. Electricity-based derivatives enable energy market players to buy and sell electricity-based financial products months in advance in order to protect themselves from price volatility. According to recorded traded volumes, however, we see little interest from companies in purchasing electricity in this way. As companies continue to gain insight into how to trade these products, however, we believe the depth and liquidity of the market will increase signficantly. As derivative contracts continue to increase in prevalence and complexity, we expect to see an impact on price levels and investment decisions as well as higher visibility in the long-term.

Currently, only base load cash settlement contracts are offered in the market, while peak load and physical settlement contracts are expected to be introduced soon. Furthermore, only four-month or shorter contracts are traded in the market. When formulating base load contracts, the underlying asset is the arithmetic average of hourly prices observed in the spot market on the due date. Currently, the size of each contract is delineated by the number of hours in the due month times 1 MWh (prices are per MWh). For peak load contracts (not yet available in Turkey) the same formula is applied for only the time period of 8am to 8pm and by excluding official holiday and weekend prices.

Loss and theft ratio

Electricity prices are generally higher in Turkey than the Organization for Economic Co-operation and Development (OECD) average due to the exceptionally high tariffs imposed by the Turkish government (c.45% tax for end users). This also contributes to the higher loss and theft ratio in comparison with the OECD average (c.15% in Turkey vs. c.9% in OECD based on 2012 data). Another factor that leads to Turkey's high loss and theft ratio is poor infrastructure and supervision, particularly in Eastern and Southern Turkey. The loss and theft ratio has increased during the period of increasing privatization in the electricity generation industry. As private investors continue to work more on preventing loss and theft, we forecast a reduction to a 14% loss ratio by 2021. Further efforts to curb loss and theft however, would result in increased registered demand and thus marginally higher sales prices.

Figure 6 Loss & theft ratio in Turkey



Source: Global Securities, TEIAS

FX vulnerability of the sector

Electricity generation companies typically have heavily FX-denominated debt due to the high of capital expenditures required in the industry in general. As a result, there is a high risk of FX losses in the event that the Turkish lira depreciates. Thus, electricity generation companies are still exposed to near-term FX losses in the event of any CAD-related loss of confidence. FX losses can significantly impact the bottom lines of electricity generation companies. On average, we calculate that every 1% depreciation would trim 5-10% off the power producers' bottom-lines.

MARKET UPDATE

Turkey | Utilities | 05 September 2014

Aksa Enerji

On the way to first lignite fire

We retain our Buy rating on Aksa Enerji but cut FV to TRY3.10 from TRY4.33, to reflect lower operational profitability and higher financial loss expectations. At 2014E and 2015E EV/EBITDA of 9.7x and 7.3x, respectively, the shares trade at a 34% and 39% discount to local peers. A 2014E P/E of 15.2x implies a 24% premium to industrials under our coverage. However, with the lignite power plant investment to be inaugurated in 4Q14 and 1Q15, we expect 2015E EBITDA to increase by 30-35% YoY and the EBITDA margin to expand by 4pp. Against this backdrop, a 2015E P/E of 8.3x looks attractive compared with the peer average of 9.8x. Currency volatility is a source of uncertainty and the biggest risk to the bottom line in our view given the company's TRY1.5bn short FX position as of 2Q14.

First fire in lignite PP expected in 4Q14

The lignite power plant with 270MW installed capacity will be launched in two phases, the first in 4Q14 and the second in 1Q15. We expect the asset base diversification to begin bearing fruit starting from 1Q15E and c.4pp YoY increase in operational profitability by 2015E.

Further emphasis on retail segment

Retail customers remain the most profitable segment for Turkish power producers. With the eligible customer limit declining every year, gradually leading to a fully liberalized market, and as Turkish consumers become more aware of the possibility of buying electricity at discounts to official tariffs (but still c.10-12% higher selling price than on the spot market), this is a growing and highly profitable segment. Moreover, we expect Aksa Enerji's aggressive advertising strategy in this segment to pay off with market share gains in the short to medium term.

More usage of vertical integration by 1Q15

We expect vertically integrated companies to be better positioned to mitigate/lower the negative impact stemming from harsh competition in the electricity generation business due to newly launched investments. The two distribution regions that Aksa Enerji's sister company (Aksa Elektrik Dagitim) caters to have around c.2mn clients and around c.6TW of electricity is used per annum, corresponding to 2.5% of Turkey's gross total electricity consumption. Given most of the client base currently buys their electricity from Aksa Elektrik Dagitim, Aksa Enerji can easily sell to a significant block of this customers via vertical integration.

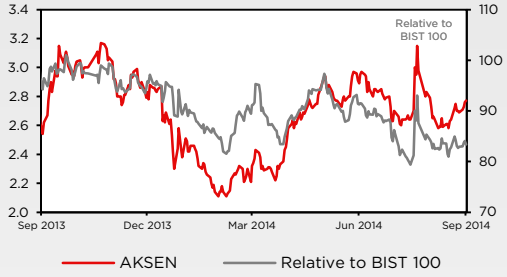
Small hedge via US$-based sales to Cyprus

Aksa Enerji sells around 650-700MW of electricity per annum to Cyprus with US$-based prices. This corresponds to 7-8% of the company's overall sales volume and c.10% of revenues, providing a small hedge to the company's c.TRY1.5bn short FX position as of 2Q14. We believe this cash stream is relatively stable with no payment delay or problems reported to date.

BUY	12% upside
Fair Value	TRY3.10
Bloomberg ticker	**AKSEN TI**
Share Price	TRY2.77
Market Cap	USD790m/TRY1.7bn
Free Float	21%

TRY m Y/E 31-Dec	2013A	2014E	2015E	2016E
Sales	1,786	2,134	2,380	2,493
EBITDA	312	354	499	571
Net Profit	(133)	125	228	261
Book Value	985	1,110	1,338	1,599
P/E (x)	(11.9)	15.2	8.3	7.3
P/BV (x)	1.6	1.7	1.4	1.2
ROE (%)	(14%)	11%	17%	16%
Gross dividend yield (%)	-	-	-	-

AKSEN Price Performance



All share price data as at close on 4-Sep-2014.

Source: Global Securities, Company Data, Bloomberg

Analyst

Sercan Uzun
+90 850 201 94 88
sercanu@global.com.tr
Global Menkul Degerler

Research contact for general inquiry

+90 212 244 55 66
research@global.com.tr
www.global.com.tr

Rıhtım Cad. No:51
Karakoy 34425 – Istanbul
Global Menkul Degerler

Figure 1 Financial summary

Aksa Enerji

Recommendation:	**BUY**
Fair Value:	**TRY 3.10**
Share Price:	TRY 2.77
Upside / Downside:	11.8%
Previous Fair Value:	TRY 4.33
% change to Fair Value:	(28.5%)
Bloomberg ticker:	AKSEN TI
Reuters code:	AKSEN IS
Model published on:	5-Sep-2014

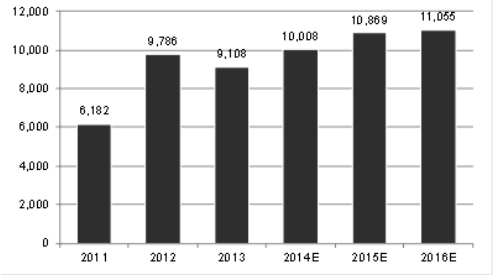
Shares In Issue Less Treasury (m)	613
Market Cap (TRY m)	**1,698**
Net Debt	1,525
Adjustments For Associates & Minorities	-
Enterprise Value (TRY m)	**3,223**
Net Pension Deficit (Surplus)	-

Forthcoming Catalysts

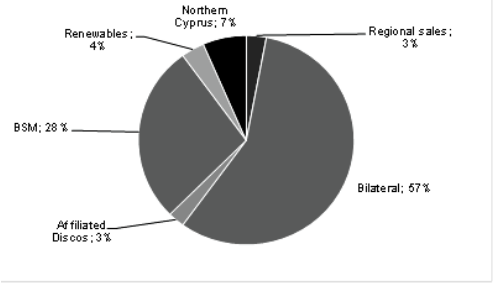
3Q14 financials	Nov-14

Global Securities Analyst
Sercan Uzun
+90 850 201 94 88
sercanu@global.com.tr

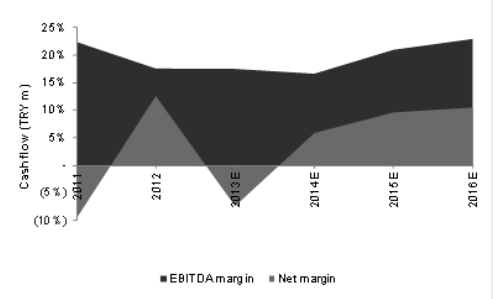
Sales volume (GW)



Sales breakdown (2014E)



Margin Trends



Valuation Metrics (Year End Dec)	**2011**	**2012**	**2013**	**2014E**	**2015E**	**2016E**
P/E	(12.8)	12.1	(11.9)	15.2	8.3	7.3
P / Sales	1.2	1.5	0.9	0.9	0.8	0.8
EV / Sales	2.4	2.3	1.7	1.7	1.6	1.5
EV / EBITDA	10.7	13.1	10.0	10.0	7.4	6.6
P/BV	2.3	2.5	1.6	1.7	1.4	1.2
P/OCF	16.8	6.9	17.6	6.3	4.5	4.6
P/FCF	16.8	17.5	2.5	20.4	17.1	17.5

Key Ratios (Year End Dec)	**2011**	**2012**	**2013**	**2014E**	**2015E**	**2016E**
EBITDA margin	22.4%	17.5%	17.5%	16.6%	20.9%	22.9%
Operating Profit margin	15.3%	11.8%	11.2%	10.9%	15.7%	16.8%
Capex / Revenue	25.6%	6.4%	33.4%	15.6%	19.9%	15.5%
Capex / Depreciation	3.6	1.1	5.3	2.8	3.8	2.6
Net Debt / EBITDA	5.1	4.5	4.9	4.7	3.6	3.3
EBITDA / Net Interest	3.3	4.1	3.9	4.0	5.2	5.7
ROE	(18%)	21%	(14%)	11%	17%	16%

P&L Summary (Year End Dec)	**2011**	**2012**	**2013**	**2014E**	**2015E**	**2016E**
Revenue	**1,307**	**1,841**	**1,786**	**2,134**	**2,380**	**2,493**
% change	43.5%	40.8%	(3.0%)	19.5%	11.5%	4.7%
EBITDA	**292**	**323**	**312**	**354**	**499**	**571**
% change	54.2%	10.4%	(3.4%)	13.5%	40.7%	14.5%
% margin	22.4%	17.5%	17.5%	16.6%	20.9%	22.9%
Depreciation & Amortisation	93	105	112	121	125	152
Operating Profit	**199**	**218**	**200**	**234**	**373**	**420**
% change	68.5%	9.2%	(8.0%)	16.7%	59.8%	12.4%
% margin	15.3%	11.8%	11.2%	10.9%	15.7%	16.8%
Associates	-	-	-	-	-	-
EBIT	**199**	**218**	**200**	**234**	**373**	**420**
Net Financials	(265)	23	(346)	(67)	(79)	(82)
Other Pre-tax Income	(47)	(15)	(5)	(11)	(9)	(11)
Pre Tax Profit	**(113)**	**226**	**(150)**	**156**	**285**	**326**
Income Tax Expense	13	(5)	(17)	31	57	65
Discontinued Operations	-	-	-	-	-	-
Net Income	**(126)**	**231**	**(133)**	**125**	**228**	**261**
Reported EPS (TRY)	(0.21)	0.38	(0.22)	0.20	0.37	0.43
Underlying EPS (TRY)	**(0.21)**	**0.38**	**(0.22)**	**0.20**	**0.37**	**0.43**
DPS (TRY)	-	-	-	-	-	-
Payout Ratio	-	-	-	-	-	-
Shares In Issue Less Treasury (m)	578	613	613	613	613	613

Cash Flow (TRY m)	**2011**	**2012**	**2013**	**2014E**	**2015E**	**2016E**
Profits before tax	(113)	226	(150)	156	285	326
Taxes Paid	13	(5)	(17)	31	57	65
Depreciation	93	105	112	121	125	152
WC change	129	67	(68)	54	65	3
Operating cash flow	**96**	**403**	**(90)**	**299**	**418**	**416**
Capital Expenditure	**335**	**117**	**597**	**334**	**473**	**387**
Dividends	-	-	-	-	-	-
Increase in debt	335	(126)	63	128	167	80
Free Cash Flow	96	160	(623)	93	111	109
IPO proceeds	-	-	-	-	-	-
Net Cash Flow	**96**	**160**	**(623)**	**93**	**111**	**109**

Balance Sheet (Year End Dec)	**2011**	**2012**	**2013**	**2014E**	**2015E**	**2016E**
Cash & Equivalents	110	41	22	70	123	300
Trade receivables	258	246	142	281	323	299
Inventories	122	136	250	211	241	258
Tangible Fixed Assets	1,567	1,582	2,064	2,111	2,552	2,617
Goodwill & Intangibles	11	12	10	2	3	3
Deferred taxes	7	47	97	85	112	109
Other Assets	593	873	291	486	301	422
Total Assets	**2,669**	**2,936**	**2,876**	**3,246**	**3,654**	**4,008**
Interest Bearing Debt	1,610	1,484	1,547	1,675	1,842	1,922
Trade payables	164	99	178	224	231	221
Other Liabilities	196	237	167	237	243	266
Total Liabilities	**1,970**	**1,820**	**1,892**	**2,136**	**2,316**	**2,409**
Paid-in capital	578	613	613	613	613	613
Reserves	123	502	372	497	725	986
Total Equity	**700**	**1,116**	**985**	**1,110**	**1,338**	**1,599**
Net Debt (Cash)	1,500	1,444	1,525	1,605	1,719	1,622

Source: Global Securities, Company Data

Investment case

Lignite power plant investment in the pipeline

Aksa Enerji's 270MW lignite power plant investment will be completed in two phases. The first phase of 135MW will be operational by the end of 2014 and the second phase will be operational by 1Q15. This will make Aksa Enerji a more thermal-based power generator, and diversify its asset base with more efficient power plants and greater exposure to local sources. We expect this power plant to increase Aksa Enerji's EBITDA by c.30-35% in 2015 while enhancing the company's EBITDA margin by around 4pp in 2015E compared to 2014E.

Small hedge via US$ based sales to Cyprus

Aksa Enerji sells around 650-700MW of electricity per annum to Cyprus with US$-based prices. Although this accounts for only 7-8% of the company's overall sales volumes and c.10% of revenues, it still provides a slight hedge to the company's c.TRY1.5bn short FX position as of 2Q14. The contract is valid until 2027 with annual price adjustments linked to US inflation. We believe this cash stream is relatively stable with no payment delay/problems reported to date.

Currently unused export licenses offer hidden upside potential

Aksa Enerji currently has 2TW and 1TW unused export licences to Syria and Iraq, respectively. Aksa Enerji benefited significantly from exports to Syria in 2012, selling around 1.25TW of electricity (corresponding to 12.6% of sales volumes at the time). The ongoing political tension in both countries (and destruction of transmission lines) makes these contracts operationally defunct currently and we do not expect any positive developments in the medium term. However, once they are operational, we expect the 3TW to bring an additional TRY600mn in annual revenues if fully utilized, implying a 10% additional upside to our fair value.

Vertical integration will pay off in the long run

Aksa Enerji's sister company, Aksa Elektrik Dagitim, caters to two distribution regions — Firat and Çoruh. These two regions encompass c.2mn clients and consume around c.6TW of electricity, corresponding to 2.5% of Turkey's gross total electricity consumption. Given most of the client base buys their electricity from Aksa Elektrik Dagitim, this provides Aksa Enerji an important large block of customers to whom it can sell electricity once the vertical integration materializes. Nevertheless, Aksa Enerji and its sister concern have not taken full advantage of this synergy to date given their customer base diversification strategy. From 2015 onwards, with the lignite investment, we expect a higher share of sales to go through its sister company in order to prevent unexpected volatility from adverse market conditions.

Aggressive advertising for retail sales

Turkish citizens' awareness of discounts to official electricity tariffs is quite limited as power companies do not advertise their prices aggressively. The discounts rates applied to official tariffs vary between 14-18% for households, still making this market more attractive than selling at the spot price. From the Street and advertisments in different media sources, we observe that Aksa Enerji is one of very few companies agressively adverstising to capture market share in this segment.

Vulnerable to TRY depreciation

On-going investments, high indebtedness, leverage and short FX positions tend to be the soft underbelly of power producers. Aksa Enerji's net debt/EBITDA stands around 4.9x as of 2013YE. We expect this to reach 5.0x at some point in 2014 and then gradually decline to 3.3x by 2016. Nevertheless, Aksa Enerji is still vulnerable to TRY depreciation going forward and we calculate a c.8% negative impact on the bottom line for every 1% depreciation in the TL vs our base case forecast.

Corporate actions are source of uncertainty

Aksa Enerji's corporate actions have led to significant volatility in the company's share price and became a source of uncertainty over the last 2-3 years. The parent, Kazancı Holding, sold its 16.62% stake in Aksa Enerji to Goldman Sachs in April 2012 for TRY5.25 per share, which was around 50% above the then share price. GS has the option to sell the shares back for the same price within 5 years but so far it has not indicated any intention to do so. In 2013, Aksa Enerji sold 16.3% of itself for TRY4.00 per share to institutional investors; this was at a c.25% discount to the share price at the time. This, in addition to discounted sales, weak financials and political tension, has wegihed on the share price.

Valuation

We use a discounted free cash flow to firm (DCFF) and local peer comparison to reach a fair value for Aksa Enerji of approximately TRY1,899m, corresponding to a TRY3.10 share price. The DCFF and peer group comparison methods have 65% and 35% weightings respectively as we believe a DCF is a more appropriate method of valuing Turkish power producers and the unique structure of the Turkish market limits the utility of an international peer comparison.

Table 2 Valuation summary of Aksa Enerji

Method	Weight	Implied value	Contribution
DCF	65%	1,671	1,086
Peer group comparison	35%	2,323	813
Fair value (TLmn)			1,899
Current Mcap (TLmn)			1,698
Fair value ($ mn)			904
Current Mcap ($mn)			786
Absolute upside potential			**12%**

Source: Global Securities, Finnet, Bloomberg

DCF Analysis

We forecast revenues and operating profits for the company based on our estimates for installed capacity, production and price levels. The main assumptions used in our DCF analysis are as follows:

- Based on on-going/approved investment plans as well as company statements, we forecast the company will have an installed capacity of 2,666MW by 2017 while remaining unchanged until the end of 2023. Thus, we incorporate 2.6% CAGR in installed capacity over our forecast horizon (2012-2021).
- We forecast Aksa Enerji's overall capacity utilisation ratio to oscillate within the 60-65% band. While calculating the CUR for different types of power plants, we base it on the 7,750h, 4,000h and 3,500h of maximum operational availability for natural gas, hydro and wind power plants respectively.
- We also expect sales prices will gradually increase over time. We estimate a 1.9% CAGR increase in average sales price over the next decade. We believe increasing competition and the prospective nuclear power plant will keep prices under pressure.
- We forecast costs for the company will fall gradually from c.88% in 2013 to c.79% of electricity sales by 2023. This is due to inauguration of new power plants currently in the investment pipeline.
- The capacity expansion should bring high expenditures over the next four years. We incorporate around TRY1.5bn capex until 2017. We assume 75% of capex will be financed with debt and most of the short term debt will be financed through revolving credits. Accordingly, we estimate the net debt position increasing to TRY1,900mn, corresponding to 3.1x of equity. 65% of the gross debt is long term while the payments of the major investment loans match with the start-ups of new capacities.
- In determining the discount rate, we presumed a real risk free rate of 6%. With a 1% nominal terminal growth rate beyond 2021, we have calculated a fair equity value of TRY1,671 mn for Aksa Enerji.

Table 3 DCF summary for Aksa Enerji

	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E
EBIT	**234**	**373**	**420**	**550**	**566**	**583**	**600**	**618**	**637**	**656**
Tax on EBIT	47	75	84	110	113	117	120	124	127	131
+ Depreciation	121	125	152	151	183	172	162	152	143	135
Change in WC	54	65	3	25	24	12	7	11	15	13
Cash flow from operations	**254**	**359**	**484**	**566**	**611**	**626**	**635**	**635**	**637**	**647**
- Capex	334	473	387	262	46	46	46	46	46	46
FCFF	**-80**	**-114**	**97**	**304**	**565**	**580**	**588**	**589**	**591**	**601**
Net present value	**1,521**									
Terminal growth rate	1%									
Terminal value	6,825									
PV of TV	**1,896**									
EV	3,417									
Net debt	**1,746**									
Fair value	**1,671**									

Source: Global Securities

Local peer comparison

In the peer comparison, we blended multiples of listed domestic peers as we believe this is the most appropriate way to account for Turkish market dynamics into our peer comparison. From this we calculate a fair value of TRY2,323m. This is c.37% above the company's current Mcap. We used EV/EBITDA, P/Book and P/Installed capacity multiples but do not use P/E as we think it does not give a meaningful result.

Table 4 Local peer comparison summary of Aksa Enerji

Company	Country	Ticker	Price (Local currency)	Mcap (TRYm)	EV (TRYm)	P/E (x)		EV/EBITDA (x)		P/BV (x)		RoE (%)		M-cap/Installed Capacity
						2014E	2015E	2014E	2015E	2014E	2015E	2014E	2015E	as of 1Q14
Ak Enerji	Turkey	AKENR TI	1.16	846	2,866	-	25.2	14.5	8.5	1.1	1.0	-4.2	2.9	1.1
Ayen Enerji	Turkey	AYEN TI	1.34	226	1,021	19.6	7.8	8.9	7.7	1.0	0.9	10.6	9.9	0.6
Zorlu Enerji	Turkey	ZOREN TI	1.29	640	4,405	-	-	20.9	19.6	0.8	0.8	0.5	0.1	0.6
Average								**14.8**	**11.9**	**1.0**	**0.9**			**0.8**
Relevant multiples of Aksa Enerji*								10.0	7.4	1.7	1.4			0.9
Premium/Discount								**-32%**	**-38%**	**77%**	**57%**			**18%**
Implied Fair Value to Aksa Enerji (TRYm)						**2323**								

Source: Global Securities, Bloomberg, *our estimates

Changes in KPIs and where we stand in comparison to consensus

Our revenue estimates have remained nearly flat as average sales price decreases were offset by higher sales volumes. However, we cut our EBITDA forecast by 14% for 2014 mainly due to a higher cost structure and lower sales prices as well as exposure to third party procurement during maintenance of sizeable NatGas power plants. We trim our 2014 net income estimate by around 24% due mainly to changes in our assumptions at the EBITDA level along with a higher net financaial loss forecast. We diverge substantially from the consensus for both 2014 and 2015 net income as we expect the net financial loss of the company due to FX to be lower than consensus.

Table 5 Summary of changes in KPIs of Aksa Enerji and comparison with consensus

	2014E			2015E			2014E		2015E	
Key Financials (TRY m)	Old	New	Δ	Old	New	Δ	Consensus	Deviation from consensus	Consensus	Deviation from consensus
Revenues	2,156	2,134	-1%	2,554	2,380	-7%	2,059	4%	2,518	-5%
EBITDA	414	354	-14%	545	499	-9%	339	5%	478	4%
EBITDA margin	**19.20%**	**16.60%**		**21.34%**	**20.95%**		**16.45%**		**18.97%**	
Net Income	164	125	-24%	205	228	11%	65	91%	124	85%
Net margin	**7.61%**	**5.84%**		**8.03%**	**9.57%**		**3.17%**		**4.90%**	

Source: Global Securities, TEIAS

MARKET UPDATE

Turkey | Utilities | 05 September 2014

Ayen Enerji

Lightweight, valuation unappealing

We downgrade our rating on Ayen Enerji to Neutral from Buy, with TRY1.56 FV, based on DCF valuation combined with local peer comparison. Although it trades at a 2014E and 2015E P/E of 8.0x and 9.7x, implying a 35% and 4% discount, respectively, to the average for industrials under our coverage, we think this is justified. We believe the company's tiny size (346MW installed capacity vs. c.1200MW average of AKENR, AKSEN and ZOREN) in comparison with local peers prevents it from benefitting from economies of scale, while its renewables-focused asset base, although very profitable, limits the company's flexibility. Moreover, the company is highly vulnerable to TRY depreciation as its net debt/EBITDA increased significantly to 8.4x in 2013YE from 2.7x in 2010YE.

Highest profitability within listed power producers

Ayen Enerji's asset base (c.88% renewables) has helped the company post the highest EBITDA margins in its peer group. However, it makes the company vulnerable to weather conditions and limits its flexibility. At the same time, the reservoir capacity of some of the company's hydro power plants seems to protect it from adverse weather conditions. For example, we did not observe any significant margin erosion in 2Q14 financials despite a drought. After the company's decision not to pursue its NatGas PP investment due to changes in the company's market outlook, we think Ayen Enerji's asset mix is likely to remain renewables-abundant and relatively lightweight in comparison with its peers for the foreseeable future.

Volume strategy poses a risk to profitability

Ayen Enerji's volume strategy back in 2013 did not pay off. The company's margins were eroded as it remained exposed to third-party procurement given its customer base's electricity demand far exceeded Ayen's own profitable supply capacity. We appreciate that Ayen has decided to forego efforts to create an economy of scale that exposed it to higher trading and pressured its margins throughout 2013. However, we believe the company might be obliged to consider this strategy again mainly due to bank loan covenants as banks generally prefer to see higher cash flow rather than high profitability.

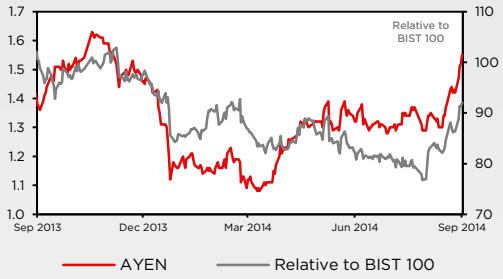
Increasing indebtedness and short FX position

Because Ayen Enerji holds large amounts of FX-denominated debt (TRY734m at YE2013) stemming from its capital expenditures to expand its generation base, the risk of FX losses is high if the Turkish lira depreciates due to another bout of EM tapering fears focused on Turkey's high current account deficit. Whilst our base case forecast does not assume any sharp FX volatility, Ayen is exposed to near-term FX losses. Moreover, in line with plans to further expand its installed capacity, Ayen continues to take on debt to finance its exploration of electricity generation from different sources. Thus, FX exposure could continue to increase in the future. We calculate that each 1% depreciation in the TL would hurt the bottom line by around TL6mn in 2014, or 18% of our 2014E bottom line forecast.

NEUTRAL	0% upside
Fair Value	TRY1.56
Bloomberg ticker	**AYEN TI**
Share Price	TRY1.55
Market Cap	USD123m/TRY265m
Free Float	15%

TRY m Y/E 31-Dec	2013A	2014E	2015E	2016E
Sales	369	246	242	247
EBITDA	76	107	103	106
Net Profit	(88)	33	27	28
Book Value	242	256	275	295
P/E (x)	(2.3)	8.0	9.7	9.5
P/BV (x)	0.8	1.0	1.0	0.9
ROE (%)	(36%)	13%	10%	9%
Gross dividend yield (%)	-	-	3.7%	3.1%

AYEN Price Performance



All share price data as at close on 4-Sep-2014.

Source: Global Securities, Company Data, Bloomberg

Analyst

Sercan Uzun
+90 850 201 94 88
sercanu@global.com.tr
Global Menkul Degerler

Research contact for general inquiry

+90 212 244 55 66
research@global.com.tr
www.global.com.tr

Rıhtım Cad. No:51
Karakoy 34425 – Istanbul
Global Menkul Degerler

Figure 1 Financial summary

Ayen Enerji

Recommendation:	**NEUTRAL**
Fair Value:	**TRY 1.56**
Share Price:	TRY 1.55
Upside / Downside:	0.3%
Previous Fair Value:	TRY 1.78
% change to Fair Value:	(12.6%)
Bloomberg ticker:	AYEN TI
Reuters code:	AYEN IS
Model published on:	5-Sep-2014

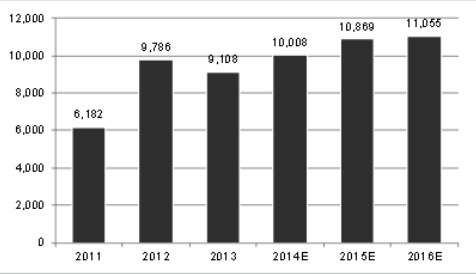
Shares In Issue Less Treasury (m)	171
Market Cap (TRY m)	**265**
Net Debt	639
Adjustments For Associates & Minorities	-
Enterprise Value (TRY m)	**904**
Net Pension Deficit (Surplus)	-

Forthcoming Catalysts

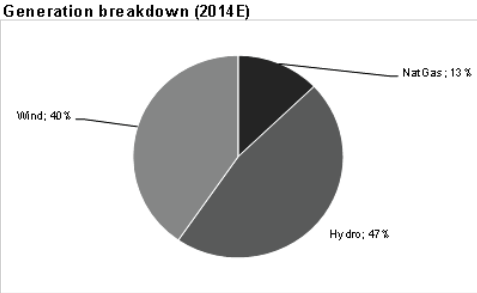
3Q14 financials	Nov-14

Global Securities Analyst
Sercan Uzun
+90 850 201 94 88
sercanu@global.com.tr

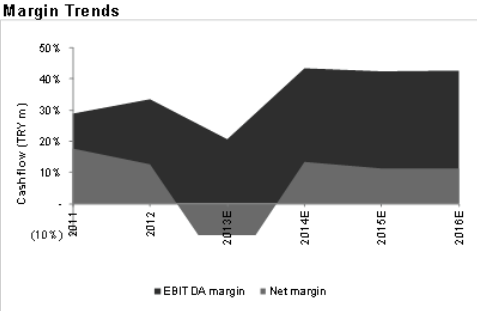
Sales volume (GW)



Generation breakdown (2014E)



Margin Trends



Valuation Metrics (Year End Dec)	2011	2012	2013	2014E	2015E	2016E
P/E	8.0	14.2	(2.3)	8.0	9.7	9.5
P / Sales	1.4	1.8	0.5	1.1	1.1	1.1
EV / Sales	4.2	4.4	2.3	4.4	4.6	4.6
EV / EBITDA	14.4	13.2	11.0	10.2	10.7	10.7
P/BV	0.7	1.2	0.8	1.0	1.0	0.9
P/OCF	1.0	5.5	15.0	21.7	4.1	3.8
P/FCF	1.0	12.8	3.1	7.2	6.2	5.5

Key Ratios (Year End Dec)	2011	2012	2013	2014E	2015E	2016E
EBITDA margin	28.9%	33.6%	20.7%	43.5%	42.5%	42.8%
Operating Profit margin	22.9%	23.5%	13.9%	30.5%	30.2%	30.3%
Capex / Revenue	2.8	0.4	0.2	0.7	0.2	0.2
Capex / Depreciation	47.4	3.6	3.1	5.7	1.3	1.2
Net Debt / EBITDA	9.5	7.8	8.4	7.7	8.2	8.2
EBITDA / Net Interest	23.7	6.0	3.3	2.5	2.3	2.3
ROE	8%	8%	(36%)	13%	10%	9%

P&L Summary (Year End Dec)	2011	2012	2013	2014E	2015E	2016E
Revenue	**142**	**194**	**369**	**246**	**242**	**247**
% change	15.2%	36.6%	90.2%	(33.3%)	(1.6%)	1.9%
EBITDA	**41**	**65**	**76**	**107**	**103**	**106**
% change	(31.0%)	58.5%	17.3%	40.3%	(3.8%)	2.5%
% margin	28.9%	33.6%	20.7%	43.5%	42.5%	42.8%
Depreciation & Amortisation	8	20	25	32	30	31
Operating Profit	**33**	**45**	**51**	**75**	**73**	**75**
% change	(35.8%)	39.6%	12.8%	46.3%	(2.3%)	2.2%
% margin	22.9%	23.5%	13.9%	30.5%	30.2%	30.3%
Associates	-	-	-	-	-	-
EBIT	**33**	**45**	**51**	**75**	**73**	**75**
Net Financials	(3)	(4)	(144)	(31)	(36)	(36)
Other Pre-tax Income	2	(10)	(5)	(3)	(3)	(4)
Pre Tax Profit	**31**	**32**	**(98)**	**41**	**34**	**35**
Income Tax Expense	6	7	(10)	8	7	7
Discontinued Operations	-	-	-	-	-	-
Net Income	**25**	**24**	**(88)**	**33**	**27**	**28**
Reported EPS (TRY)	0.15	0.14	(0.51)	0.19	0.16	0.16
Underlying EPS (TRY)	**0.15**	**0.14**	**(0.51)**	**0.19**	**0.16**	**0.16**
DPS (TRY)	-	-	-	-	-	-
Payout Ratio	-	-	-	-	-	-
Shares In Issue Less Treasury (m)	171	171	171	171	171	171

Cash Flow (TRY m)	2011	2012	2013	2014E	2015E	2016E
Profits before tax	31	32	(98)	41	34	35
Taxes Paid	6	7	(10)	8	7	7
Depreciation	8	20	25	32	30	31
WC change	(161)	107	(43)	53	(8)	(12)
Operating cash flow	**195**	**(63)**	**(20)**	**12**	**65**	**71**
Capital Expenditure	**403**	**70**	**78**	**185**	**38**	**38**
Dividends	-	-	-	-	-	-
Increase in debt	217	161	180	135	16	15
Free Cash Flow	9	27	82	(37)	43	48
IPO proceeds	-	-	-	-	-	-
Net Cash Flow	**9**	**27**	**82**	**(37)**	**43**	**48**

Balance Sheet (Year End Dec)	2011	2012	2013	2014E	2015E	2016E
Cash & Equivalents	3	46	95	39	44	38
Trade receivables	17	26	46	29	30	31
Inventories	-	-	-	-	-	-
Tangible Fixed Assets	577	618	717	846	847	850
Goodwill & Intangibles	15	43	42	32	37	42
Deferred taxes	5	4	22	10	12	11
Other Assets	294	222	245	282	307	356
Total Assets	**910**	**960**	**1,168**	**1,239**	**1,278**	**1,327**
Interest Bearing Debt	394	554	735	870	885	901
Trade payables	177	79	142	71	80	93
Other Liabilities	43	38	49	42	37	39
Total Liabilities	**614**	**671**	**926**	**983**	**1,003**	**1,033**
Paid-in capital	171	171	171	171	171	171
Reserves	125	150	62	85	104	124
Total Equity	**296**	**321**	**233**	**256**	**275**	**295**
Net Debt (Cash)	391	508	639	830	841	863

Source: Global Securities, Company Data

Investment case

By far the most profitable asset base

Ayen Enerji has by far the most profitable asset base among listed Turkish energy companies, with renewables making up 88% of its current asset base. Although this makes the company vulnerable to weather conditions and limits its flexibility, it still posts the highest EBITDA margins in the market among listed peers. In 2Q12, the company even succeeded in breaching 60% profitability margins, almost four times the margins reported by its peers. After the company's decision not to pursue its NatGas PP investment due to changes in the its market outlook, Ayen Enerji's asset mix seems likely to remain renewables-abundant for the foreseeable future.

Margin erosion if exposed to third-party procurement

Ayen Enerji switched to a volume strategy in 2013 rather than focusing on profitability. This led to margin erosion as the company was exposed to third party procurement as its customer base's electricity demand far exceeded Ayen's own profitable supply capacity. We believe this was in response to pressure from the company's lenders, which preferred higher cash flow rather than higher profitability. However, we appreciate that beginning from 1Q14, the company decided to forego the efforts to create an economy of scale that exposed it to higher trading and pressured its margins throughout 2013.

Increasing indebtedness and short FX position

Because Ayen Enerji holds large amounts of dollar- and euro-denominated debt (TRY734m at YE2013 – TRY608.7mn in € and TRY79.4mn in US$) due to its power plant investments, the risk of FX losses is high if the Turkish lira depreciates in the event of another bout of EM tapering fears focussed on Turkey's high current account deficit. Whilst our base case forecast does not assume any sharp FX volatility, Ayen is exposed to near-term FX losses in the event of any CAD-related loss of confidence. As Ayen continues to take on debt to finance its exploration of electricity generation from different sources, FX exposure could continue to increase in the future. We calculate that each 1% depreciation in TL would hurt the bottom line by around TL6mn in 2014 or 18% of our 2014E bottom line forecast.

Dividend uncertainty

Although we expect Ayen to restart distributing dividends from its 2014E earnings, there are many factors at play. Although Ayen has been one of the highest dividend payers in the sector in some recent years (e.g. 2010, 2012), increasing indebtedness due to capital expenditures comes at a price: loan covenants, in our view. We believe that in order to comply with banks' requirements mentioned in the loan agreement, Ayen remained silent on its dividend policy over the last 2 years along with a net loss posted in 2013. We believe Ayen preferred to keep cash on hand to leave room to meet its loan covenants. We expect the average dividend yield to be around 4.0% in the medium term. However, in case of sharp FX volatility which would trim Ayen's bottom-line and further efforts to comply with loan covenants, Ayen's dividend yield might not materialize as we forecast.

Valuation

To value Ayen Enerji we employ the discounted cash flow to equity (DCFE) method and local peer group comparison to reach a fair value of TL266mn, which implies a price of TRY1.56 per share. DCFE and the peer group comparison methods have 65% and 35% weights respectively as we believe DCF is a more appropriate measure to incorporate the market dynamics and long-term growth plans of the company. Our 12M target price of TRY1.56 suggests 0% absolute upside potential.

Table 6 Valuation summary of Ayen Enerji

Method	Weight	Implied value	Contribution
DCF	65%	184	119
Peer group comparison	35%	419	147
Fair value (TLmn)			266
Current Mcap (TLmn)			265
Fair value ($ mn)			127
Current Mcap ($mn)			123
Absolute upside potential			**0%**

Source: Global Securities, TEIAS

DCF Analysis

In our analysis, we forecast revenues and operating profits based on our estimates for installed capacity, production and price levels. Our main assumptions in our DCF analysis are as follows:

- Based on projected/approved investment plans as well as company statements, we forecast the company will increase its installed capacity to 478MW by 2017 from 399MW in 2013. Thereafter we expect the company's' installed capacity to remain unchanged until 2023. Ayen's capacity increase translates into a 1.8% CAGR over the next decade. Although this might appear low, this is because the company cancelled its investment plan on 518MW NatGas PP.
- We forecast Ayen Enerji's overall capacity utilization ratio to materialise around 83.9% over the next decade. While calculating the CUR for different type of power plants, we base on the 7,500h, 3,750-4,000h and 3,250-3,500h of maximum operational availability for natural gas, hydro and wind power plants respectively. Then we assume a load factor for each type of power plant as 55%, 85-100% and 85-90% for NGPP, HPP and WPP respectively.
- We expect sales prices will gradually increase over time. We estimate an increase of around 2% over the next decade for both bilateral and spot prices. The reason of this is large supply capacity and the increasing competition in the market especially on the bilateral side which in turn also impacts the spot prices.
- We forecast costs as percentage of sales will decrease gradually to 65.4% by 2023 from 83.9% in 2013. This will due to a fewer dependance on third party procurement as well as inauguration of new and efficient renewables based capacity.

- We estimate increasing capex to finance the capacity investments. We assumed total TL300mn capex over the next four years, the period in which most of the capacity addition will be undertaken. This would correspond to TL75mn capex per year which is 30% of the revenues.
- We assume 80% of capex will be financed with long-term debt, the remainder being the equity contribution. The substantial capacity investments should raise leverage of the company. We expect 2013YE 2.6x net debt/equity ratio to reach 3.5x by 2014YE. Nonetheless, the majority of the debt should continue to be long term, to be paid with the proceeds of new capacities.
- In determining the discount rate, we presumed a real risk free rate of 6%. With a conservative 1% nominal terminal growth rate beyond 2023, we calculate a fair equity value of TRY184mn for Ayen Enerji.

Table 7 DCF summary for Ayen Enerji

	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E
Profits before tax	**41**	**34**	**35**	**23**	**44**	**45**	**45**	**47**	**49**	**50**
Taxes paid	8	7	7	5	9	9	9	9	10	10
+ Depreciation	32	30	31	29	27	28	28	27	26	25
+ Increase in accounts payables	-71	9	13	9	-72	0	0	0	0	0
- Increase in accounts receivables	-18	1	1	8	0	0	1	0	1	0
- Increase in inventory	0	0	0	0	0	0	0	0	0	0
Cash flow from operations	**12**	**65**	**71**	**49**	**-10**	**64**	**63**	**64**	**64**	**65**
- Capex	185	38	38	38	3	3	3	3	3	3
+ Increase in gross financial debts	135	16	15	16	-13	-13	-12	-12	-12	-12
FCFE	**-37**	**43**	**48**	**27**	**-25**	**48**	**48**	**49**	**49**	**50**
Terminal growth rate	**1%**									
Terminal value	297									
PV of terminal value	68									
PV of FCFE	116									
Fair equity value	**184**									

Source: Global Securities, TEIAS

Local peer comparison

In the peer comparison, we blended multiples of local peers. From this we calculate a fair value estimate of TL419mn. This provides a significant 58% potential upside compared with the last closing market cap. Compared with its local peers, Ayen Enerji shares are trading at a 32% and 6% discount on a 2014E and 2015E EV/EBITDA basis, respectively. They are also trading at a 13% and 12% discount on a 2014E and 2015E P/Book basis, respectively. Note that Ayen Enerji's expected 45% average EBITDA margin is much higher than the weighted average of local peers. This makes the multiple comparisons difficult as also evidenced in the fair value calculations derived from our analysis. Therefore, we assign only 35% weight to our peer comparison as we think the data is highly distorted given peers' very different financial dynamics.

Table 8 Local peer comparison summary of Ayen Enerji

Company	Country	Ticker	Price (Local currency)	Mcap (TRYm)	EV (TRYm)	P/E (x)		EV/EBITDA (x)		P/BV (x)		RoE (%)		M-cap/Installed Capacity
						2014E	2015E	2014E	2015E	2014E	2015E	2014E	2015E	as of 1Q14
Ak Enerji	Turkey	AKENR TI	1.19	860	2,880	-	25.2	14.4	8.5	1.1	1.0	-4.2	2.9	1.3
Aksa Enerji	Turkey	AKSEN TI	2.77	1,692	3,438	25.0	12.2	10.1	7.2	1.7	1.5	7.0	14.5	0.8
Zorlu Enerji	Turkey	ZOREN TI	1.41	720	4,485	-	-	20.6	19.4	0.8	0.8	0.5	0.1	0.8
Average								**15.1**	**11.7**	**1.2**	**1.1**			**1.0**
Relevant multiples of Ayen Enerji*								10.2	10.7	1.0	1.0			0.8
Premium/Discount								**-32%**	**-8%**	**-13%**	**-12%**			**-23%**
Implied Fair Value to AYEN Enerji (TRYm)						**419**								

Source: Global Securities, Bloomberg, * our estimates

Changes in KPIs and where we stand compared to consensus

The cut in our revenue expectations is primarily due to the company's lower exposure to third-party trading after it abandoned its volume strategy. The change to our forecasts at the EBITDA level is limited as we forecast profitability to increase, widening margins. The change at the net income level is mostly due to change in our assumptions about net financial income/loss. We also differ from consensus at the absolute revenue and EBITDA margin levels. Note that consensus forecasts are not too representative as Ayen is not widely covered by brokerage houses.

Table 9 Summary of changes in KPIs of Ayen Enerji

	2014E			2015E			2014E		2015E	
Key Financials (TRY m)	Old	New	Δ	Old	New	Δ	Consensus	Deviation from consensus	Consensus	Deviation from consensus
Revenues	344	246	-28%	355	242	-32%	376	-34%	398	-39%
EBITDA	110	107	-3%	114	103	-10%	100	7%	115	-10%
EBITDA margin	**31.98%**	**43.52%**		**32.11%**	**42.52%**		**26.62%**		**28.89%**	
Net Income	43	33	-23%	33	27	-17%	11	200%	29	-4%
Net margin	**12.50%**	**13.40%**		**9.30%**	**11.29%**		**2.93%**		**7.16%**	

Source: Global Securities, TEIAS

Valuation Methodology

Aksa Enerji

We use a discounted free cash flow to firm (DCFF) and local peer comparison to reach a fair value for Aksa Enerji of approximately TRY1,899m, corresponding to a TRY3.10 share price. The DCFF and peer group comparison methods have 65% and 35% weights respectively as we believe DCF is more appropriate method of valuing Turkish power producers and also the unique structure of Turkish market prevents us using international peer comparison.

Ayen Enerji

For the valuation of Ayen Enerji, we employed the discounted cash flow to equity (DCFE) method and local peer group comparison to reach a fair value of TL266mn which implies TRY1.56 price per share. DCFE and the peer group comparison methods have 65% and 35% weights respectively as we believe DCF is a more appropriate measure to incorporate the market dynamics and long-term growth plans of the company. Our 12M target price of TRY1.56 suggests 0% absolute upside potential.

Risks to Fair Value

Aksa Enerji

FX risks

Because Aksa Enerji holds large amounts of dollar- and euro-denominated debt (TRY1,373m at YE2013 – €175.8mn and US$515.6mn) due to its power plant investments, the risk of FX losses is high if the Turkish lira depreciates in the event of another bout of EM tapering fears focused on Turkey's high current account deficit. As Aksa Enerji continues to take on debt to finance its exploration of electricity generation from various sources, FX exposure could continue to increase in the future. We calculate that each 1% depreciation in TL would hurt the bottom-line by around TL10mn, or 8% of the 2014E bottom line.

Tougher competition

As competition in the energy sector picks up due to increasing privatization, liberalization, and nuclear generation, it will become increasingly important for electricity generators to increase profit margins by focusing on diverse and renewable sources of generation. With the state stepping back from investments in electricity generation, private investment has stepped into the void and is currently driving industry expansion. This, in turn, leads and might further lead prices to go down especially concerning bilateral contracts assuming no NatGas procurement problem and no adverse weather conditions. The harsher than expected competition might trim margins more than we forecast and pose another downside risk.

Nuclear power plants pose a threat to mainly thermal portfolios

Although the Turkish government has talked of establishing nuclear power generation facilities for nearly 40 years, Russian state-owned entities have recently taken a lead financing role to turn nuclear power plants in Turkey into reality. This year, Russian nuclear power holding company Atomenergoprom expects to receive a construction license for a 4800MW nuclear power generation sight at Akkuyu (on the Eastern Mediterranean Coast). This would enable the company to start construction in 2015 or 2016 with the possibility of beginning operations by 2019. Plans to build a second nuclear power

generation site at Sinop (on the northern edge of the Black Sea Coast) are also in the works. Turkish Electricity, Trading and Contracting Company (TETAS) has signed an agreement to purchase and sell 70% of output from Akkuyu in the open market during its first 15 years of operations. An influx of additional electricity to the Turkish market would likely lead to an oversupply problem, which could lower the capacity utilization ratio of existing electricity generators and damage revenue figures for suppliers such as Aksa Enerji.

Ayen Enerji

FX risks

Because Ayen Enerji holds large amounts of dollar- and euro-denominated debt (TRY734m at YE2013 – TRY608.7mn in € and 79.4mn in US$) due to its power plant investments, the risk of FX losses is high if the Turkish lira depreciates in the event of another bout of EM tapering fears focussed on Turkey's high current account deficit. Whilst our base case forecast does not foresse any sharp FX volatility Ayen is exposed to near-term FX losses in the event of any CAD related loss of confidence. As Ayen continues to take on debt to finance its exploration of electricity generation from different sources FX exposure could continue to increase in the future. We calculate that each 1% depreciation in TL would hurt the bottom-line by around TL6mn in 2014 or 18% of the 2014E bottom line.

Adverse weather condition

Quarter-to-quarter profits in the electricity market are often buffeted by the impact of weather on both supply and demand. In periods of drought, the operational hours of hydro power plants are cut drastically (although limited for Ayen given its power plants reservoir capacity), leading to idleness for hydro plants. During years that see particularly high temperatures during the summer months, electricity demand can swell, while softer weather in winter periods can push electricity demand down. The unpredictable nature of weather conditions on a year-to-year basis can lead to volatility in the earnings of power producers.

Explanation of Rating System

12-MONTH RATING DEFINITION

BUY: Analyst expects at least 10% upside potential to fair value, which should be realized in the next 12 months

NEUTRAL: Analyst expects upside/downside potential of between +10% and -10% to fair value, which should be realized in the next 12 months

SELL: Analyst expects at least 10% downside potential to fair value, which should be realized in the next 12 months

TRADING RATING DEFINITION

TRADING BUY: Analyst expects a positive short-term movement in the share price (max duration 2 months from the time Trading Buy is announced) and may move out of line with the fair value estimate during that period.

TRADING SELL: Analyst expects a negative short-term movement in the share price (max duration 2 months from time Trading Sell is announced) and may move out of line with the fair value estimate during that period.

ANALYST CERTIFICATION

I, Sercan Uzun, hereby certify that the views expressed in this research report accurately reflect my personal views about the market and, in conjunction with the named analysts, the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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