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Energy Deals **2018**

Merger and acquisition activity
in Turkey's energy market

January 2019



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Methodology and terminology

Energy Deals 2018 includes analyses of cross-border and domestic deal activity in the oil, gas and electricity markets in Turkey. The analyses are based on publicly available information and encompass announced deals as of 31 December 2018, including those pending financial and legal closure. Deal values are the consideration value announced or reported while the figures relate to actual stake purchases and are not multiplied to 100%. This document is also available at www.pwc.com.tr/energy-deals

Welcome

to the 11th edition of the *Energy Deals*, our annual analysis of mergers and acquisitions in the Turkish energy market



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Our excitement of recovery in the total deal figures last year unfortunately proved short lived in 2018 and they ended at the lowest levels since 2011. At the beginning of the year, we had tied our hopes to a potential strengthening in the utility deals in particular. However, this did not materialise and, compared to 2017 the total deal number tapered off 30% to 23 and the total deal value decreased 56% to USD 1.52 billion. We explain this downturn mostly with the unfavourable FX volatility and increasing borrowing costs in Turkey, which put a significant pressure on the market dynamics and the companies' balance sheets.

The most immediate repercussions were observed in the series of cancellations of the bilateral power supply agreements between the private suppliers and the eligible consumers due to the increasing costs. As a result, the consumers had to buy power from the spot market at much higher costs. In addition to the cancellations, the downturn also caused a peak in demand by the local players for loan restructuring, as most of them carry significant amount of FX-denominated liabilities versus their income in TRY.

In this climate of 2018, there was no rush to acquire new renewable energy assets despite the approaching end of YEKDEM in 2020. The caution continued to be warranted about the thermal power assets despite the recently launched capacity mechanism and the only deals in the distribution segments were internal restructurings. As a result, the number of the deals in the utility segment and their total value shrank by 40% and 60% year-on-year, to end in 18 and USD 800 million,

respectively. Similar to the previous years, the majority of the utility deals were in power generation.

On the oil and gas front, on the other hand, in the absence of a big ticket like the sale of Petrol Ofisi last year, everything was more or less back to normal of few deals with limited values. The total value generated by the disclosed oil and gas deals was USD 720 million in 2018, half the last year's figure, although the deal number in this segment rose from 3 to 5. Different than the utility deals, the nature of the assets and companies involved in these deals were much more diversified to include refining, LPG storage, gas pipeline, LNG supply and gas import.

Looking ahead... Turkey is a big country with strong energy demand prospect and this had long been the bread and butter of our clients' investment cases. However, our observation among the investor community now points out to the fact that more needs to be done especially on the regulation and liberalisation fronts to get these deal figures back to their heyday. Once again, we prefer to remain cautious and see the chance for a sustainable recovery in 2019.

Deal totals: The lowest since 2011...

2018 saw 23 energy deals with 56% year on year decrease in estimated and disclosed total value to USD 1.52 billion from USD 3.45 billion in 2017. This resulted in 37% of wipe out in average deal value to USD 66 million per deal in 2018 compared to USD 105 million in 2017. And historically, these marked the lowest levels since 2011.

18 deals were disclosed in the utilities segment in 2018 with an estimated total value of USD 800 million. Similar to the previous years, the majority of the utility deals were in power generation and mostly renewables.

Contribution of the privatisations to the total value of the utility deals continued to wane in 2018, with the decreasing number of generation assets in the basket. In fact, it was only 11% with six completed tenders,

compared to 23% contribution of eight tenders in 2017, all HPPs in both years. No improvement had been observed with respect to Bursa and Aliaga CCGTs waiting on the privatisation list for the last couple of years, nor with Afsin-Elbistan B, the largest lignite-fired power plant in Turkey, the privatisation of which is on the agenda since 2008.

The 12 private utility deals, on the other hand, made up 89% of the total utility deal value. All were in renewable power generation except two in thermal and two in gas distribution.

In the absence of such a big ticket as Petrol Ofisi which marked a significant recovery in the values last year, the disclosed total deal value in the oil and gas sector halved to USD 720 million in

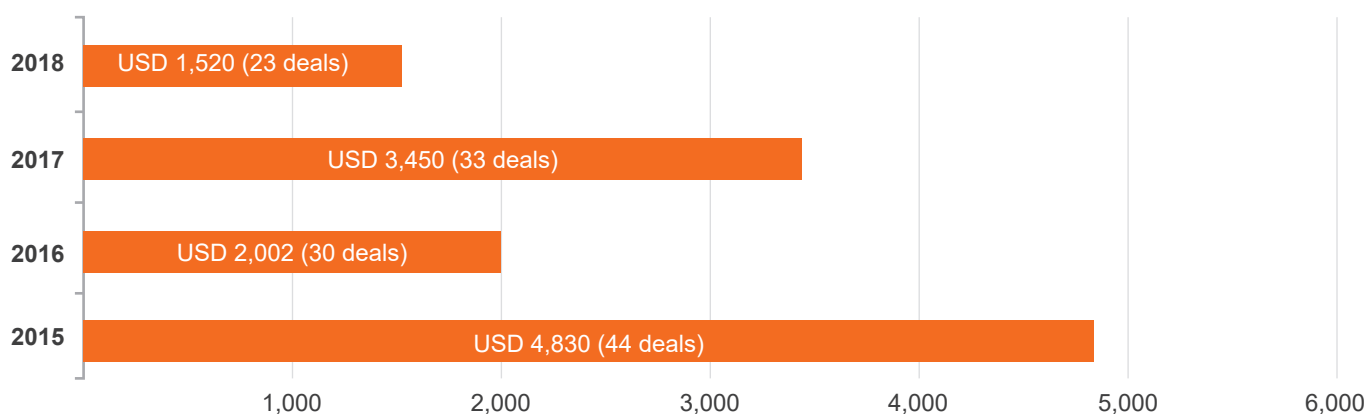
2018 with five deals. However, taking into consideration the undisclosed value, it is likely that this segment still overtook the utilities for the first time since 2007. And this front was more diversified as each of the five deals was in a different subsegment: refining, LPG storage, gas pipeline, LNG supply and gas import.

With a dramatic downturn, the energy deal figures in 2018 marked the lowest levels since 2011

Figure 1: Total Energy Deals in 2017 and 2018

	FY17			FY18			YoY change	
	Number	Value (USD m)	Average Value	Number	Value (USD m)	Average Value	% number	% value
Utilities	30	2,000	67	18	800	44	-40%	-60%
Oil and gas	3	1,450	483	5	720	144	67%	-50%
Total	33	3,450	105	23	1,520	66	-30%	-56%

Figure 2: Total deals between 2015 and 2018 by value (USD million) and number of deals



With the further fading share of privatisations in total deal value, the share of the private deals increased to 94% in 2018 from 86% in 2017.

94%
of value generated
by private deals

versus

6%
for public deals

99%
local involvement

versus

1%
foreign

Proving last year an exception with a balance between the local and foreign involvement, 2018 was all about the Turkish players on the acquirer side (disregarding the oil and gas deals with no disclosed value).

Utilities: Weakest performance...

In 2018, Turkish utility companies were beset by the unfavourable exchange rate movements and increasing borrowing costs, which put a significant pressure on the market dynamics and the balance sheets.

As a result, 18 utility deals generated an estimated total value of USD 800 million in 2018, posting 40% and 60% year-on-year drops, respectively. And, these marked the end to the utilities' 11-year reign over the energy deal value figures.

Most of the energy investments in Turkey are FX-leveraged versus the income in local currency. So not hard to observe, hit by the currency fluctuation and worsening borrowing environment, the players were too busy tidying up their portfolios and restructuring their liabilities that buying new assets has suddenly become a luxury for most of them. And this happening despite the closing opportunity window in the renewables with the approaching end of the YEKDEM scheme and the recent launch of the capacity mechanism long awaited by the thermal asset owners underlines a strong message.

Albeit fewer in number, the majority of the utility deals were in power generation and mostly in the renewables segment similar to the previous years. And, only two transactions were announced in gas distribution with limited contribution to the estimated total deal value.

The share of the *private utility deals* in the estimated total utility deal value remained almost the same as last year at around 89%.

The largest disclosed private deal value was generated in the buyback of Goldman Sachs' 16.62% of shares in Akxa Enerji by Kazanci Holding, the controlling shareholder in the company, for USD 300 million. Akxa is a large Turkish utility company with a diversified portfolio of operations in power and gas markets in Turkey and

abroad. The deal was acted according to the 2012 agreement which granted Goldman Sachs to sell its shares back to Kazanci Holding.

Listing the rest of the private power generation deals according to the asset generation capacity, the largest deal we had is the transfer of the 20-year license to operate the 1,376 MW Afsin – Elbistan Lignite-fired Power Plant ('Afsin-Elbistan A') and the adjacent lignite mine from ERG Verbund to Celikler Holding.

The power plant has been offline for 18 months and needs significant rehabilitation investment for efficiency improvement and full compliance to environmental standards. This transfer puts an end to the 24-year old legal dispute which prevented the full transfer of these rights to ERG Verbund, a JV between the Turkish construction company ERG and the Austrian power company Verbund.

Next comes the long awaited sale of OMV's 890 MW Samsun CCGT to Bilgin Enerji. OMV has been known considering this disposal for the last couple of years as a part of its 'strategic target to reduce the exposure of the non-integrated power business'. It also represents OMV's second major step in leaving the Turkish market, after selling Petrol Ofisi, the country's largest fuel retailer, to Vitol Investment Partnership for USD 1.45 billion in 2017. After these exits, OMV continues to operate in Turkey only in energy sales and trading.

On the other hand, Bilgin Enerji, the acquirer of the Samsun CCGT, is a local energy company with 850 MW of portfolio of operating wind and hydro power assets. So, a relatively new asset as Samsun CCGT which became operational in 2013, is believed to constitute a good opportunity to fit Bilgin's target to improve the balance and flexibility of its existing renewable energy portfolio.

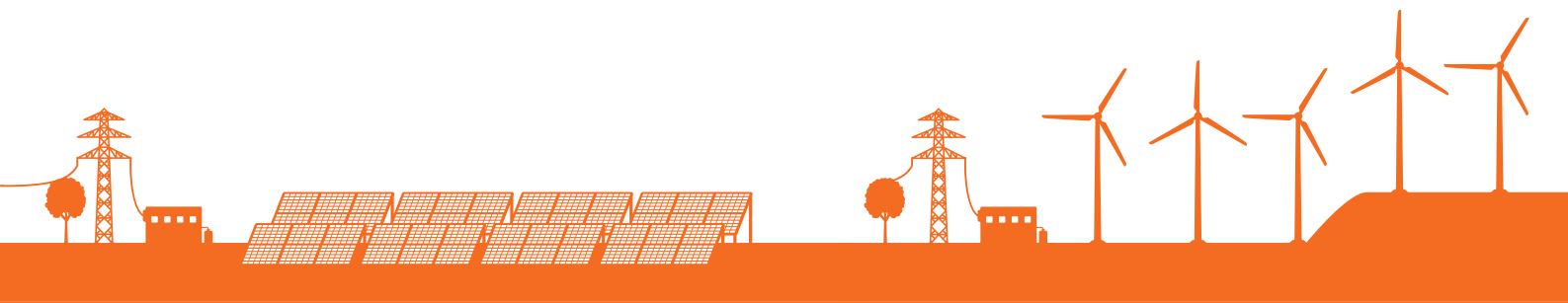
The third largest capacity that changed

hands in 2018 was 120 MW Evrencik WPP, sold by the Turkish – British partnership between STFA Holding and RES Anatolia to Gencer Enerji. The seller had acquired the generation license in 2012 and not proceeded with the construction since then. The buyer, on the other hand, is a subsidiary of GNCR Holding who also owns solar, wind and biogas power generation assets.

Next is the 90 MW Paravani HPP owned by Anadolu Kafkasya Enerji. Paravani Energy of the Netherlands bought 13.51% stake in Anadolu Kafkasya Enerji for USD 10 million in 2018 and agreed to buy an additional 14.19% stake for USD 10.5 million to be completed in 2019.

Going down the list, it was not surprising to see the consortium of Cengiz-MNG-Limak-Kolin-Kalyon in a new deal this year either. This time, they acquired Lodos Elektrik Uretim which owns the operating 24 MW Kemerburgaz WPP. The same consortium also holds the operation rights to the new Istanbul Airport, which is close to this WPP, and therefore is believed to be acquired to mainly meet the upcoming demand from the airport.

The internal consolidation deals by Zorlu Energy diversified the utility deals into the gas distribution. A separate company named Zorlu Enerji Dagitim (Zorlu Energy Distribution) was incorporated in 2018 with Zorlu Energy as the main shareholder. And its 90% shares in each of Trakya Natural Gas Distribution and Gazdas Natural Gas Distribution were transferred to this new company. With the recent disclosure by Zorlu, this consolidation is interpreted to be a preparation for the sale of these two gas distribution companies.



In the **public utility deals** arena, none of the 12 hydropower assets with relatively sizeable capacities bookmarked in our report last year were put on tender in 2018. Instead, the investors were invited to bid for only six of other smaller ones with a combined capacity of only 101.2 MW, less than one third the privatised HPP capacity last year. These tenders in 2018 generated only USD 87 million, again much less than the USD 474 million of bids offered for the 16 assets in 2017. And these figures yielded value of USD 860k of per MW, 43% less than in 2017. Similar to the previous years, none of the tenders attracted foreign interest.

The largest privatised hydro asset was the 46.3 MW Cine HPP, the highest bid of USD 30 million for which came from İş-Kaya İnşaat, a Turkish construction company. This was in fact the second tender for the same asset. Demars İnşaat had won the first tender in 2017 for USD 25 million. In the absence of public disclosure, we assume the failure to comply with the handover conditions led the way to its repeat.

The second largest bid of the year at USD 23 million was placed by Tayfurlar Elektrik, a Turkish energy company already active in the hydro segment, for the 26.2 MW Tortum

HPP. Similar to above, this was the second tender for the same asset. It was again the same company, Tayfurlar, who won the first tender for USD 31 million in 2016, but the handover did not materialise for an undisclosed reason.

Looking at the assets waiting on the privatisation shelf, the ongoing concerns about the lack of improvement in the liberalisation of and the transparency in the Turkish natural gas market are also assumed to be the cause of lack of action by the Privatisation Administration to tender the 1,482 MW Bursa CCGT and 180 MW Aliaga CCGT.

Figure 3: Utility Deals in 2018

Date Announced	Target	Stakes in %	Acquirer	Acquirer Nationality	Deal Value (USD m)
8-Mar-18	Evrencik WPP	100%	Gencer Enerji	Turkey	n.d.
20-Mar-18	Aksa Enerji	17%	Kazanci Holding	Turkey	300
23-Mar-18	Gonen HEPP	100%	Altek Alarko	Turkey	16
26-Mar-18	Beytek Elektrik Uretim	100%	Elestas Elektrik Uretim	Turkey	n.d.
27-Mar-18	Sutculer HEPP	100%	GNE Elektrik Uretim	Turkey	2
12-Apr-18	Dinar 2 HEPP	100%	Ozce Madencilik	Turkey	2
20-Apr-18	Cine HEPP	100%	Is-Kaya Insaat	Turkey	30
4-May-18	Tohma HEPP	100%	ERG Altyapi	Turkey	14
16-May-18	Trakya Bolgesi Dogalgaz Dagitim	90%	Zorlu Enerji Dagitim	Turkey	40
16-May-18	Gazdas Gaziantep Dogalgaz Dagitim	90%	Zorlu Enerji Dagitim	Turkey	27
30-May-18	OMV Samsun Elektrik Uretim	100%	Bilgin Enerji	Turkey	n.d.
5-Jun-18	Yedigol Hidroelektrik Uretim	100%	Bandirma Enerji ve Elektrik Uretim	Turkey	n.d.
18-Jul-18	ERG Verbund (Afsin Elbistan TPP)	100%	Celikler Holding	Turkey	n.d.
20-Jul-18	Tortum HEPP	100%	Tayfurlar Elektrik	Turkey	23
8-Aug-18	Lodos Elektrik	100%	Cengiz-MNG-Limak-Kolin-Kalyon	Turkey	n.d.
6-Nov-18	Ado Enerji & Mursal Enerji	100%	Kangal Elektrik Uretim & Is Portfoy	Turkey	n.d.
14-Nov-18	Anadolu Kafkasya Elektrik Uretim	28%	Paravani Energy	The Netherlands	21
11-Dec-18	Turcas Kuyucak Jeotermal Elektrik Uretim	8%	Turcas Petrol	Turkey	2
Total					≈ 800*

n.d.: not disclosed

*: Includes estimated deal value for undisclosed deals

Oil and gas: Back to business as usual...

In the absence of such a big ticket as the Petrol Ofisi deal last year, oil and gas deal arena got back to its usual quiet in 2018, although it was more diversified than the utility front with deals in five subsegments: refining, gas pipeline, product storage, LNG supply and gas import.

Similar to 2017, only one deal had a disclosed value. Before we continue with the figures, however, we would like to clarify our methodology about the deal values in this segment. We abstain making estimations for the undisclosed transactions due to the unique nature of the deals in this segment, opposed to the utilities where the undisclosed values can be estimated via benchmark to similar disclosed deals. Therefore, the single disclosed values in 2017 and 2018 are each considered the total deal value for the corresponding year.

Accordingly, although five deals were announced in 2018 versus three in 2017, the total deal value halved to USD 720 million from USD 1.45 billion. Looking into it detailly, this USD 720 million transaction was Petkim's 30% share acquisition in Rafineri Holding.

Another deal involving SOCAR Turkey, this time directly, was their acquisition of 7% stake in the TANAP, the 1,850 km long natural gas pipeline which recently kicked off the delivery from the Shah Deniz-2 gas field in Azerbaijan to Turkey with an initial capacity of 16 bcm/y. Following this deal, TANAP shareholders are Southern Gas Corridor CJSC (51%), BOTAS (30%), BP (12%) and SOCAR Turkey (7%).

And a third deal involving SOCAR Turkey, this time on the sell-side, was the sale of 55% share in SOCAR Turkey LNG, an LNG distribution company, to Reysas Logistics, a Turkish logistics company. We consider the rationale behind this move the maximisation of synergy between the complementing assets and operations of the two companies.

In the fourth deal, which concerns LPG storage operations, Total added another move to its plan to exit Turkey. The company sold its 50% share in Butangaz, a LPG filling and storage company, to Ipragaz, who already owns the other 50%. Ipragaz, owned by SHV

Energy of the Netherlands, is the second largest LPG company by sales in Turkey. Total, on the other hand, kicked off its exit from Turkey in 2015 and has so far sold its fuel retail arm to Demiroren Group and its LPG retail arm again to Ipragaz.

The final disclosed deal in the oil and gas space was the application by the Turkish businessman Adnan Sen to the Competition Authority of Turkey to buy 40% stake in Avrasya Gaz, a major Turkish natural gas importer. Adnan Sen is also the managing director of the rival importer Bosphorus Gaz.

Figure 4: Oil and Gas Deals in 2018

Date Announced	Target	Stakes in %	Acquirer	Acquirer Nationality	Deal Value (USD mn)
9-Jan-18	Rafineri Holding	30%	Petkim Petrokimya	Turkey	720
17-Apr-18	TANAP Pipeline	7%	Socar Turkey	Azerbaijan	n.d.
18-Jul-18	Butangaz	50%	Ipragaz	Netherlands	n.d.
3-Sep-18	Socar Turkey LNG	55%	Reysas Yatirim Holding	Turkey	n.d.
5-Nov-18	Avrasya Gaz	40%	Adnan Sen	Turkey	n.d.

n.d.: not disclosed

Looking ahead

The strong energy demand is still there even in the current economic climate. The highly skilled workforce stands out among the peer markets. The current weakness in the Turkish Lira would be an opportunity for cash-rich foreign investors...

But these may not be enough to boost the appetite for energy deals in 2019. In fact, the project finance lenders are becoming more vary of servicing a sector where the variability of the outcomes is fat, the evolution in the regulation of the interdependent segments is still uneven, margins are getting skinnier and the balance sheets are very fragile due to the mismatch between currencies of the turnover and the liabilities. In this vein, political stability, recovery in the local currency and a more market-based approach will be the major watch-outs to unlock the deal potential for both the local and foreign investors in the Turkish energy market in 2019.

To start with the *utilities*, despite the slowdown in the aggregate figures in 2018, the renewable energy deals are expected to continue to be the locomotive of the utility transactions. Albeit not reportedly considered by the energy administration at the moment, the inclusion of the hydro and geothermal assets into the YEKA scheme or even an extension to the YEKDEM deadline would prove quite a catalyser in the utilities deal space.

The twelve hydropower assets put on the privatisation list in 2017 are still waiting to be tendered: Akkopru HPP (115 MW), Camlica 1 HPP (84 MW), Kesikkopru HPP (76 MW), Demirkopru HPP (69 MW), Seyhan-1 HPP (60 MW), Topcam HPP (60 MW), Derbent HPP (56 MW), Camligoze HPP (32 MW), Kepez HPP (26 MW), Seyhan-2 HPP (8 MW), Yuregir HPP (6 MW) and Kepez 2 HPP (6 MW).

A similar local bidder profile is expected to show interest in these assets if launched for tender in 2019. On the other hand, if it goes beyond 2019, the current inclusion of the privately held hydropower plants into the capacity mechanism would also add a momentum to the deals in this segment too.

Going down the utilities value chain... We expect the gas distribution front be relatively more eventful, given the recent announcement by the German utility company EWE about their intention to exit the Turkish market and sell their stakes in BursaGaz and KayseriGaz as well as Zorlu's announced intention to sell its gas distribution shares in Trakya and Gaziantep. The progress in these planned transactions are likely to pave the wave for more similar deals, both in gas distribution and electricity distribution segments.

Making predictions about the *oil and gas* deals is even much harder as the nature of the deals is quite sporadic and not necessarily a direct reaction to the market developments. For instance, last year we were hopeful that the regulation giving EMRA more grip on the enforcement of the national stock requirement regulation with instant online access to the storage facilities would result in some deals by the players with inadequate storage capacity. But this did not stimulate any transaction so far.

Against this unpredictable background, however, it would be still worth mentioning about the planned investments by SOCAR Turkey. In an interview, the company CEO reiterated their plans to further invest in the Turkish energy market and that the company is willing to acquire a fuel retailer which should match the supply by their new STAR Refinery.

Last year, we hoped that the recovery in energy deals figures in 2017 had not been an exception and we were hopeful about higher number of closings in bigger deals in 2018. However, this did not happen due to reasons we discussed in this report. This year, we strongly believe that at least fixing the regulation with more market-based measures and sustainable actions would have a positive effect on the energy deals market in 2019.

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