

Pioneer of Renewable Energy in Türkiye

We initiate our coverage of Aydem Yenilenebilir Enerji A.S. with an “outperform” rating and a target price of 36.10 TRY per share with an upside potential of 95%.

Aydem stands as one of Türkiye’s premier renewable electricity producers. The company was founded in 1995 and developed Türkiye’s first non-government hydroelectric power plant (Bereket HPP). The company currently has a total generating capacity of 1,180 MW, with a diverse energy mix portfolio consisting of 72% hydro, 20% wind, 7% solar, and 1% geothermal power plants. The company’s steady growth plan projects an increase in total generating capacity to 1,216 MW by 2025, 1,286 MW by 2026, and 1,338 MW by 2027. These expansions consist of wind turbines and solar panels, underlining Aydem’s commitment to renewable energy. These expansions will primarily be driven by adding hybrid solar panels to existing plants and expanding wind power facilities, providing Aydem with a strategic advantage since it already owns the plants slated for expansion. Additionally, the company has outlined potential investments in a 400 MW solar power plant and a 100 MW wind power facility with a total of 500 MWh battery storage system.

Aydem’s net debt to EBITDA ratio currently stands at 4.2x, reflecting a high level of financial leverage. 2024 was a challenging year for the electricity market, with lower-than-expected power prices (PTF) severely impacting Aydem’s profitability. The company opted out of the YEKDEM tariff mechanism in 2024; however, average PTF levels underperformed expectations, exerting pressure on profit margins. Also, weak hydrological conditions led to lower-than-average electricity production, further exacerbating the impact on financial performance.

We anticipate a significant improvement in this ratio over the coming years as the company executes its expansion plans and benefits from increased operational efficiency. Aydem is positioned for a stronger year in 2025, with 41% of its installed capacity re-entering YEKDEM, providing revenue stability. Moreover, our expectation of a 16% increase in electricity production from existing power plants in 2025 should support profitability.

Aydem has underperformed the BIST index by 40.8% in the past year. Based on our USD-based blended forward P/E and EV/EBITDA evaluation, the company currently has an average discount of 33% compared to its global peers.

Key risk factors include regulatory and policy changes, financing and liquidity challenges, environmental and climate-related impacts, and electricity price volatility.

Aydem Yenilenebilir Enerji

95% Upside Potential

Listing Details and View

Bloomberg Ticker	AYDEM TI
Rating	Outperform
Price per Share, TRY	18.55
Target Price per Share, TRY	36.10
Upside	95%
Free Float	18.44%
Market cap, TRY mln	13,078
Market cap, USD mln	345
BIST-100 Index Weight	0.00%
BIST All Shares Index Weight	0.06%
Foreign Share	9.20%
Pension Funds Share	14.42%
Mutual Funds Share	9.31%

Source: Matriks, Finnet, PhillipCapital Research

Market Data as of 26/03/2025

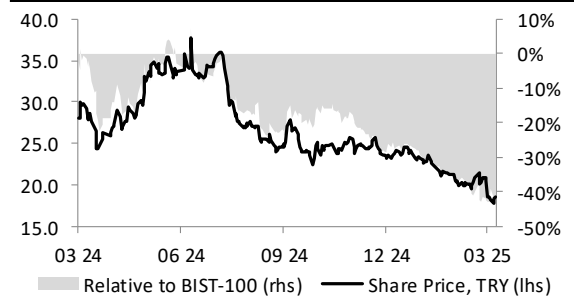
Key Financials, USD mln	2023	2024	2025E	2026E
Revenue	216	186	209	212
Revenue Growth	-6%	-14%	12%	1%
Gross Profit	93	45	88	91
Gross Profit Margin	43%	24%	42%	43%
EBITDA	176	140	147	151
EBITDA Margin	82%	75%	70%	71%
Net Profit	-43	-333	19	27
Net Profit Margin	-20%	-179%	9%	13%
Net Debt	615	594	479	450
Net Debt / EBITDA	8.5	4.2	3.3	3.0
P/E	-9.2	-1.6	18.6	13.0
P/B	0.4	0.7	0.4	0.4
EV/EBITDA	5.8	8.0	6.4	6.2

Source: Company Data, PhillipCapital Research

Shareholder Structure	Shares (million)	Ratio
Aydem Enerji Yatırımları A.S.	575	81.6%
Others	130	18.4%
Total	705	

Source: Company Data

Share Price Performance



Source: BIST, Finnet

	1m	3m	6m	1y
Nominal	-7.2%	-22.0%	-30.5%	-36.7%
Relative	-7.9%	-19.6%	-29.2%	-40.8%
Trd. Vol. USD mln	1.5	1.4	1.5	2.1

Source: BIST, Finnet

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Financials

Balance Sheet (USD Mn)	2023	2024	2025E	2026E	2027E	2028E	2029E
Cash and Cash Equivalents	68.5	95.4	113.4	72.3	62.3	67.3	71.0
Trade Receivables	67.9	89.5	68.9	69.8	72.3	73.4	72.4
Inventories	0.7	0.6	0.7	0.7	0.7	0.7	0.7
Fixed Assets	1,705.8	1,384.6	1,311.9	1,299.3	1,256.6	1,184.6	1,114.7
Other Assets	42.7	26.3	26.3	26.3	26.3	26.3	26.3
Total Assets	1,885.5	1,596.4	1,521.1	1,468.4	1,418.2	1,352.2	1,285.1
Financial Debt	683.4	689.5	592.3	522.3	452.3	372.3	292.3
Trade Payables	13.7	6.5	10.0	9.9	10.1	10.1	10.0
Other Liabilities	218.0	126.1	126.1	126.1	126.1	126.1	126.1
Total Liabilities	915.0	822.1	728.3	658.3	588.5	508.4	428.3
Shareholders Equity	970.5	774.3	792.8	810.1	829.7	843.7	856.8

Income Statement (USD Mn)	2023	2024	2025E	2026E	2027E	2028E	2029E
Revenue	215.6	186.3	209.4	212.3	220.0	223.1	220.2
Revenue Growth	-6.27%	-13.61%	12.44%	1.37%	3.63%	1.42%	-1.32%
CoGS	122.4	140.8	121.5	121.0	123.2	122.7	121.1
Gross Profit	93.2	45.5	88.0	91.3	96.8	100.4	99.1
Gross Margin	43.2%	24.4%	42.0%	43.0%	44.0%	45.0%	45.0%
Operating Expenses	21.4	18.2	16.8	17.0	17.6	16.7	15.4
Operating Expenses Growth	117%	-15%	-8%	1%	4%	-5%	-8%
EBIT	71.8	27.2	71.2	74.3	79.2	83.7	83.7
EBIT Margin	33.3%	14.6%	34.0%	35.0%	36.0%	37.5%	38.0%
Other Operating Income/Expense	31.9	27.5	0.0	0.0	0.0	0.0	0.0
Operating Profit	103.7	54.7	71.2	74.3	79.2	83.7	83.7
Operating Margin	48.1%	29.4%	34.0%	35.0%	36.0%	37.5%	38.0%
Financial Income/Expense	-412.0	-173.7	-46.5	-38.9	-35.4	-29.9	-23.2
Other Income/Expense	485.1	207.4	0.0	0.0	0.0	0.0	0.0
Profit Before Tax	63.0	-449.5	24.7	35.4	43.8	53.8	60.4
Tax Rate	169%	26%	25%	25%	25%	25%	25%
Tax Expense	106.4	-116.5	6.2	8.8	11.0	13.5	15.1
Net Profit	-43.4	-333.0	18.5	26.5	32.9	40.4	45.3
Net Profit Margin	-20.1%	-178.8%	8.8%	12.5%	14.9%	18.1%	20.6%
Depreciation	72.2	85.1	75.4	76.4	77.0	77.0	74.9
EBITDA*	175.9	139.9	146.6	150.7	156.2	160.6	158.5
EBITDA Margin	81.6%	75.1%	70.0%	71.0%	71.0%	72.0%	72.0%

*EBITDA calculation of Aydem includes other operating income/expense.

Cash Flow Statement (USD Mn)	2023	2024	2025E	2026E	2027E	2028E	2029E
Cash Opening	72.3	56.9	68.2	113.4	72.3	62.3	67.3
Net Earnings	-43.4	-333.0	18.5	26.5	32.9	40.4	45.3
Adjustments to Net Earnings	206.3	425.9	75.4	76.4	77.0	77.0	74.9
Depreciation	72.2	85.1	75.4	76.4	77.0	77.0	74.9
Change in Working Capital	-13.0	10.3	24.0	-1.0	-2.4	-1.1	0.8
Cash Flow from Core Operations	149.8	103.2	117.9	102.0	107.5	116.3	121.0
Cash from Investment Operations	-63.3	-23.5	-2.7	-63.8	-34.3	-5.0	-5.0
Cash from Financial Operations	-87.3	-68.0	-70.0	-79.3	-83.3	-106.3	-112.3
Total Cash Flow	-25.0	11.3	45.3	-41.1	-10.1	5.0	3.8
Cash at the End of the Quarter	47.2	68.2	113.4	72.3	62.3	67.3	71.0

Ratio Analysis (USD Mn)	2023	2024	2025E	2026E	2027E	2028E	2029E
P/E	-9.2	-1.6	18.6	13.0	10.5	8.5	7.6
EV/EBITDA	5.8	8.0	6.4	6.2	6.0	5.8	5.9
P/B	0.4	0.7	0.4	0.4	0.4	0.4	0.4
ROE	-4.6%	-38.2%	2.4%	3.3%	4.0%	4.8%	5.3%
ROIC	3.4%	1.5%	4.2%	4.4%	4.9%	5.5%	5.8%
Net Debt	614.9	594.1	478.8	450.0	390.0	305.0	221.3
Net Debt / EBITDA*	8.5	4.2	3.3	3.0	2.5	1.9	1.4
Net Debt / Shareholders Equity	0.6	0.8	0.6	0.6	0.5	0.4	0.3
Dividend Yield	0.0%	2.1%	0.0%	2.7%	3.9%	7.6%	9.4%

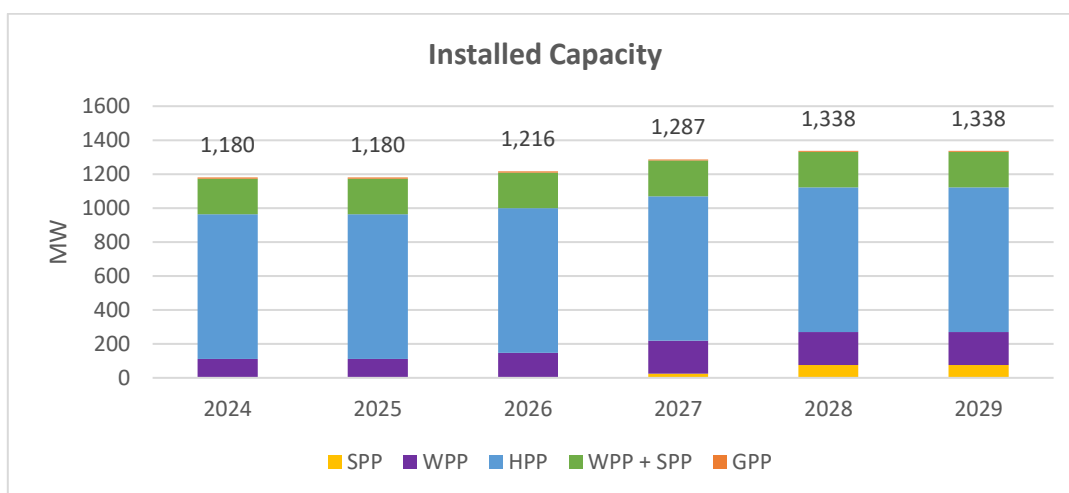
Source: Company Data, Finnet, PhillipCapital Research

Operational Outlook

Installed Capacity

Aydem is actively expanding its installed capacity to solidify its position as a leading renewable energy producer in Türkiye. As of 2024, the company operates with a total capacity of 1,180 MW, primarily composed of hydroelectric power plants (HPP), wind power plants (WPP), and hybrid solar power plants (SPP). With a structured and steady growth plan in place, Aydem aims to increase its total installed capacity to 1,338 MW by the end of 2027, marking a 13.4% growth over the next three years. This expansion is primarily driven by strategic investments in wind and solar energy, reinforcing the company’s commitment to a diversified and resilient energy portfolio.

The chart and table below illustrate our expectations for Aydem’s capacity growth.



Installed Capacity (MW)

Plant Name	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Adıgüzel HPP	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
Adıgüzel Hybrid SPP	0.0	0.0	0.0	0.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
Akıncı HPP	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
Aksu HPP	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2
Bereket I-II HPP	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Çırakdamı HPP	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1
Dalaman HPP	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
Dereli HPP	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2
Feslek HPP	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Göktaş 1-2 HPP	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6
Göktaş Hybrid SPP	0.0	0.0	0.0	0.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Gökyar HPP	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Kemer HPP	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
Kızıldere GPP	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Koyulhisar HPP	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
Koyulhisar Hybrid SPP	0.0	0.0	0.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Mentaş HPP	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6
Söke Hybrid SPP	0.0	0.0	0.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
Söke WPP	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
Toros HPP	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Uşak WPP + SPP	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7	209.7
Uşak WPP Capacity Increase	0.0	0.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
Uşak WPP Capacity Increase	0.0	0.0	0.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
Yalova WPP	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
Yalova WPP Capacity Increase	0.0	0.0	0.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Total (MW)	1,179.6	1,179.6	1,215.6	1,286.6	1,337.6	1,337.6	1,337.6	1,337.6	1,337.6	1,337.6	1,337.6

*Installed Capacity at the beginning of the year

This expansion strategy is designed to mitigate the company’s reliance on hydroelectric production, which can be affected by seasonal variations in rainfall and snowmelt. By incorporating more wind and solar power, Aydem will create a balanced and sustainable energy mix, reducing the risk of fluctuating electricity generation due to climate conditions. The company’s proactive approach to capacity growth also aligns with Türkiye’s national energy policies, which emphasize increased reliance on domestic and renewable energy sources to improve energy security and reduce carbon emissions.

Other Potential Power Plant Investments

Aydem has also announced that it is evaluating two other potential investments. The company is planning an investment of 400 MW solar and 100 MW wind power plants with a total battery storage system of 500 MWh. However, the timing and location of these projects remain undetermined. We believe that as Aydem’s debt level falls and prices of solar panels continue to decrease, these projects will become more feasible. Additionally, the installation of a battery storage system can greatly increase efficiency and average sales price of these potential investments. If these projects are implemented, Aydem’s total installed capacity could reach 1,838 MW, indicating a critical upside potential for Aydem considering its long history of expertise in the renewable energy sector.

Capacity Factor

The term “installed capacity” shows the maximum power output a power plant can generate. Therefore, it is important to take efficiency into account when forecasting electricity production, which is called capacity factor. Another crucial factor to take into account is that the capacity factor is not a fixed number, as the efficiency of power plants falls over time which can be measured as yearly degradation. To obtain a more accurate estimate of capacity factors, yearly degradation must be incorporated into the calculations.

The table below displays our complete capacity factor estimates for each power plant until 2034.

Capacity Factors

Plant Name	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Adigüzel HPP	0.016	0.019	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.018
Adigüzel Hybrid SPP	0.000	0.000	0.000	0.000	0.125	0.124	0.124	0.123	0.123	0.122	0.121
Akıncı HPP	0.411	0.424	0.423	0.422	0.421	0.419	0.418	0.417	0.416	0.415	0.414
Aksu HPP	0.175	0.227	0.227	0.226	0.226	0.225	0.224	0.224	0.223	0.223	0.222
Bereket I-II HPP	0.291	0.332	0.331	0.330	0.329	0.328	0.327	0.327	0.326	0.325	0.324
Çırakdamı HPP	0.148	0.235	0.234	0.234	0.233	0.233	0.232	0.231	0.231	0.230	0.230
Dalaman HPP	0.227	0.230	0.229	0.229	0.228	0.228	0.227	0.227	0.226	0.225	0.225
Dereli HPP	0.121	0.230	0.229	0.229	0.228	0.228	0.227	0.227	0.226	0.225	0.225
Feslek HPP	0.082	0.090	0.090	0.090	0.089	0.089	0.089	0.089	0.089	0.088	0.088
Göktaş 1-2 HPP	0.152	0.207	0.206	0.206	0.205	0.205	0.204	0.204	0.203	0.203	0.202
Göktaş Hybrid SPP	0.000	0.000	0.000	0.000	0.125	0.124	0.124	0.123	0.123	0.122	0.121
Gökyar HPP	0.204	0.218	0.218	0.217	0.217	0.216	0.216	0.215	0.214	0.214	0.213
Kemer HPP	0.081	0.111	0.111	0.110	0.110	0.110	0.110	0.109	0.109	0.109	0.108
Kızıldere GPP	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Koyulhisar HPP	0.402	0.381	0.380	0.379	0.378	0.377	0.376	0.375	0.374	0.373	0.372
Koyulhisar Hybrid SPP	0.000	0.000	0.000	0.125	0.124	0.124	0.123	0.123	0.122	0.121	0.121
Mentaş HPP	0.148	0.186	0.186	0.185	0.185	0.184	0.184	0.183	0.183	0.183	0.182
Söke Hybrid SPP	0.000	0.000	0.000	0.125	0.124	0.124	0.123	0.123	0.122	0.121	0.121
Söke WPP	0.418	0.400	0.398	0.396	0.394	0.392	0.390	0.388	0.386	0.384	0.382
Toros HPP	0.205	0.302	0.301	0.300	0.300	0.299	0.298	0.297	0.297	0.296	0.295
Uşak WPP + SPP	0.223	0.250	0.249	0.248	0.246	0.245	0.244	0.243	0.241	0.240	0.239
Uşak WPP Capacity Increase	0.000	0.000	0.300	0.299	0.297	0.296	0.294	0.293	0.291	0.290	0.288
Uşak WPP Capacity Increase	0.000	0.000	0.000	0.300	0.299	0.297	0.296	0.294	0.293	0.291	0.290
Yalova WPP	0.300	0.301	0.300	0.298	0.297	0.295	0.294	0.293	0.291	0.290	0.288
Yalova WPP Capacity Increase	0.000	0.000	0.000	0.325	0.323	0.322	0.320	0.319	0.317	0.315	0.314
Average	0.212	0.244	0.246	0.240	0.230	0.229	0.228	0.228	0.227	0.226	0.225

*Estimates of PhillipCapital Research

Aydem’s capacity factor greatly varies between its plants due to changes in the type and location of the power plants. Additionally, the yearly changing conditions significantly affect the efficiency of its hydroelectric power plants, rendering it crucial to undergo a comprehensive analysis of the plants' past production data to get an accurate measure of their efficiency. As mentioned before, the year 2024 was a difficult year for hydroelectric power plants due to lower-than-usual rainfall and snowmelt, which is why we did not use 2024 as a base year for Aydem when calculating production efficiencies. We have obtained installed capacity and production data for the past six years to maximize the accuracy of our analysis.

Electricity Production

After estimating capacity factors, predicting electricity production becomes a simple calculation. By multiplying the installed capacity by the capacity factor, we obtain the average expected electricity output per hour. To determine the annual electricity generation, this figure is then multiplied by 8,760 (24 hours per day × 365 days per year).

$$\text{Electricity Generation} = \text{Installed Capacity} \times \text{Capacity Factor} \times 8760$$

The table below shows our electricity generation forecast for each year.

Electricity Production (GWh)

Plant Name	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Adigüzel HPP	8.7	10.0	10.0	10.0	10.0	9.9	9.9	9.9	9.9	9.8	9.8
Adigüzel Hybrid SPP	0.0	0.0	0.0	0.0	49.3	49.0	48.8	48.5	48.3	48.1	47.8
Akıncı HPP	356.6	367.4	366.5	365.6	364.7	363.8	362.9	362.0	361.0	360.1	359.2
Aksu HPP	70.9	92.0	91.7	91.5	91.3	91.0	90.8	90.6	90.4	90.1	89.9
Bereket I-II HPP	8.0	9.2	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0	8.9
Çırakdamı HPP	63.9	101.1	100.8	100.6	100.3	100.1	99.8	99.6	99.3	99.1	98.8
Dalaman HPP	74.5	75.6	75.4	75.2	75.0	74.8	74.6	74.4	74.2	74.1	73.9
Dereli HPP	52.1	99.1	98.9	98.6	98.4	98.1	97.9	97.7	97.4	97.2	96.9
Feslek HPP	6.3	7.0	7.0	6.9	6.9	6.9	6.9	6.9	6.9	6.8	6.8
Göktaş 1-2 HPP	366.0	499.3	498.1	496.8	495.6	494.3	493.1	491.9	490.6	489.4	488.2
Göktaş Hybrid SPP	0.0	0.0	0.0	0.0	6.6	6.5	6.5	6.5	6.4	6.4	6.4
Gökyar HPP	19.5	20.9	20.9	20.8	20.8	20.7	20.7	20.6	20.6	20.5	20.5
Kemer HPP	34.0	46.6	46.5	46.4	46.3	46.2	46.1	45.9	45.8	45.7	45.6
Kızıldere GPP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Koyulhisar HPP	221.9	210.0	209.5	209.0	208.5	207.9	207.4	206.9	206.4	205.9	205.3
Koyulhisar Hybrid SPP	0.0	0.0	0.0	8.8	8.7	8.7	8.6	8.6	8.5	8.5	8.5
Mentaş HPP	64.1	80.9	80.7	80.5	80.3	80.1	79.9	79.7	79.5	79.3	79.1
Söke Hybrid SPP	0.0	0.0	0.0	18.6	18.5	18.4	18.3	18.2	18.2	18.1	18.0
Söke WPP	208.7	199.7	198.7	197.7	196.7	195.8	194.8	193.8	192.8	191.9	190.9
Toros HPP	89.6	132.2	131.9	131.5	131.2	130.9	130.5	130.2	129.9	129.6	129.2
Uşak WPP + SPP	409.1	459.1	456.8	454.6	452.3	450.0	447.8	445.5	443.3	441.1	438.9
Uşak WPP Capacity Increase	0.0	0.0	94.6	94.1	93.7	93.2	92.7	92.3	91.8	91.3	90.9
Uşak WPP Capacity Increase	0.0	0.0	0.0	89.4	88.9	88.5	88.0	87.6	87.1	86.7	86.3
Yalova WPP	141.7	142.6	141.9	141.2	140.5	139.8	139.1	138.4	137.7	137.0	136.3
Yalova WPP Capacity Increase	0.0	0.0	0.0	34.2	34.0	33.8	33.7	33.5	33.3	33.2	33.0
Total (GWh)	2,196	2,553	2,639	2,781	2,827	2,818	2,808	2,798	2,788	2,779	2,769

*Estimates of PhillipCapital Research

The forecast data may deviate from observed data in the short term due to vastly changing climate and environmental factors; however, over the long run (3 or more years) the forecast should be relatively accurate.

Revenue Estimation

In our revenue projections, we have assumed the electricity market price (PTF) to remain fixed at 67 USD/MWh. Given the expected equilibrium between Türkiye’s expanding installed capacity and increasing electricity demand over the medium term, we anticipate PTF to remain stable at this level. Additionally, our estimates incorporate YEKDEM tariffs and their respective expiry dates, ensuring a comprehensive assessment of Aydem’s long-term revenue potential through 2034. As of 2025, 41% of Aydem’s installed capacity participates in YEKDEM while this

ratio will fall over the next four years and the company will be selling electricity at the market price. The table below shows power plants that can benefit from YEKDEM tariffs for the next four years.

YEKDEM Tariffs (USD/MWh)

Plant Name	2025	2026	2027	2028	2029
Akıncı HPP	73	73	73	73	-
Göktaş 1-2 HPP	73	-	-	-	-
Söke WPP	73	73	-	-	-
Yalova WPP	73	73	-	-	-

Aydem’s total revenue primarily derives from three key sources. The largest portion comes from electricity generation, which constitutes the core of the company’s earnings. The second major revenue stream is ancillary services. Göktaş HPP participates in secondary frequency control services in the ancillary services market which is managed by TEİAŞ. In the ancillary services market, power plants give control of part of their capacity to TEİAŞ to manage the system in real-time balance, receiving additional income in return.

Lastly, carbon certificate sales represent an increasingly important revenue component. Our projections estimate carbon credit revenues based on each GWh of electricity produced, with an assumed fixed price of 4 USD per metric ton of CO₂ until 2034. Although current carbon certificate prices in Türkiye hover around 3 USD, they are widely expected to rise in the coming years. As a benchmark, carbon certificate prices in Europe ranged between 40–130 USD in 2024, indicating substantial upside potential for Aydem’s carbon-related income in the long run.

The table below illustrates our revenue expectations for Aydem.

Estimated Revenues (USD Mn)

Plant Name	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Adıgüzel HPP	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Adıgüzel Hybrid SPP	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.2	3.2	3.2
Akıncı HPP	26.8	26.8	26.7	26.6	24.4	24.3	24.3	24.2	24.1	24.1
Aksu HPP	6.2	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.0	6.0
Bereket I-II HPP	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Çırakdamı HPP	6.8	6.8	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.6
Dalaman HPP	5.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9
Dereli HPP	6.6	6.6	6.6	6.6	6.6	6.6	6.5	6.5	6.8	6.5
Feslek HPP	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Göktaş 1-2 HPP	36.4	33.4	33.3	33.2	33.1	33.0	33.0	32.9	32.8	32.7
Göktaş Hybrid SPP	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Gökyar HPP	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Kemer HPP	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Kızıldere GPP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Koyulhisar HPP	14.1	14.0	14.0	14.0	13.9	13.9	13.9	13.8	13.8	13.8
Koyulhisar Hybrid SPP	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Mentaş HPP	5.4	5.4	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.3
Söke Hybrid SPP	0.0	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Söke WPP	14.6	14.5	13.2	13.2	13.1	13.1	13.0	12.9	12.9	12.8
Toros HPP	8.9	8.8	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
Uşak WPP + SPP	30.8	30.6	30.5	30.3	30.2	30.0	29.9	29.7	29.6	29.4
Uşak WPP Capacity Increase	0.0	6.3	6.3	6.3	6.2	6.2	6.2	6.2	6.1	6.1
Uşak WPP Capacity Increase	0.0	0.0	6.0	6.0	5.9	5.9	5.9	5.8	5.8	5.8
Yalova WPP	10.4	10.4	9.5	9.4	9.4	9.3	9.3	9.2	9.2	9.1
Yalova WPP Capacity Increase	0.0	0.0	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2
Electricity Sales	178.3	181.1	188.5	191.6	188.8	188.1	187.5	186.8	186.5	185.5
Ancillary Services	25.5	25.4	25.4	25.3	25.2	25.1	25.0	24.9	24.9	24.8
Carbon Certificates Sales	5.6	5.8	6.1	6.2	6.2	6.2	6.2	6.1	6.1	6.1
Total Revenue	209.4	212.3	220.0	223.1	220.2	219.4	218.7	217.9	217.5	216.4

The table indicates that total sales are projected to decline after 2028, based on the assumption that Aydem will halt new renewable energy investments beyond this point. Additionally, while sale prices are expected to remain stable, the gradual decline in the efficiency of existing power plants over time will contribute to the decrease in total sales. However, if Aydem continues investing in renewable energy beyond 2028 or pursues additional expansion opportunities as previously discussed, this could introduce an upside risk to our valuation, potentially supporting stronger revenue growth than we projected.

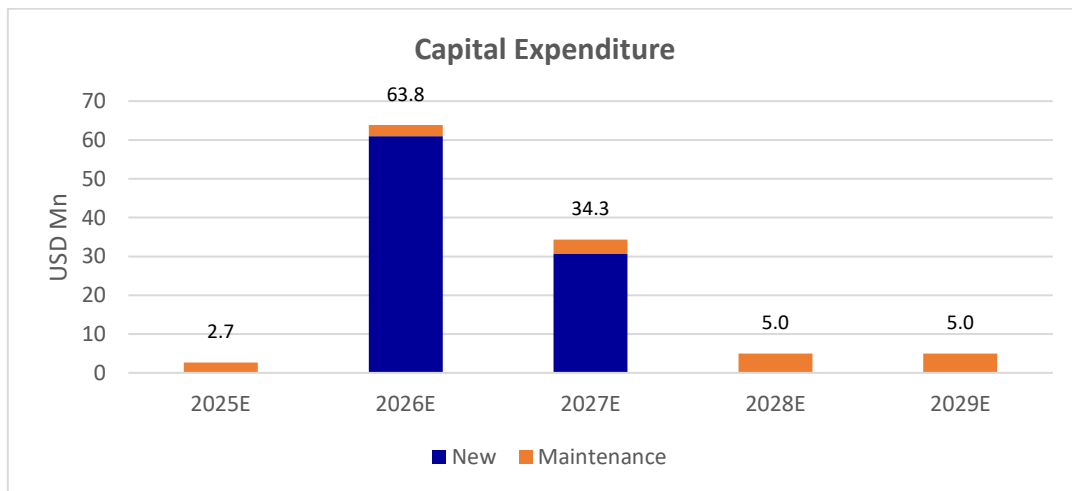
Capital Expenditure

The rapid pace of technological advancements in renewable energy sources had significant effects on investment expenses. To have a realistic and data-driven approach, we collected capex data from several electricity producers and other public sources to determine the costs of new investments.

Based on our findings, we believe hybrid solar power plants will require an investment of \$600k per MW capacity. In the case of wind power plant expansions, the capex for 1MW of installed capacity should be around \$1.0M.

In our valuation model, we take a conservative approach to maintenance capex, incorporating a higher-than-expected allocation to account for potential reinvestments in aging infrastructure. Under normal conditions, Aydem’s annual maintenance capex is expected to be around \$2 million. However, to add a margin of safety, we have factored in additional maintenance capex to represent the long-term capital required for the partial replacement of existing power plants over time.

The graph below displays our total capex expectations for the next 5 years.



Even though Aydem is expected to expand its capacity by 36 MW in 2025, we did not factor in any additional capex for this investment. The company completed this expansion project in 2024 and its capex was reflected on its 2024 balance sheet. However, the new wind power plants have yet to initiate operations due to pending authorization approvals. Aydem expects to start electricity production from these plants before the end of 2025, with no further capex required beyond basic maintenance expenses.

Peer Comparison

Due to significant regulatory differences in electricity production across countries, we did not include a peer comparison in our valuation. However, we believe it is still important to consider Aydem's position relative to its global peers. Based on our peer comparison, Aydem currently trades at a 32% discount based on a blended forward P/E ratio and a 33% discount based on a blended forward EV/EBITDA.

Company	Country	Market Cap (USD Mn)	P/E		EV/EBITDA	
			2025E	2026E	2025E	2026E
Absolute Clean Energy PCL	Thailand	389	12.8	7.1	8.5	5.4
Akfen Yenilenebilir Enerji AS	Türkiye	594	5.3	-	7.9	5.5
Audax Renovables SA	Spain	687	12.3	10.8	7.4	6.9
Brookfield Renewable Corp	Canada	9,249	-	-	12.9	11.9
Clearwise AG	Germany	135	-	-	10.4	8.7
Clearway Energy Inc	USA	5,165	78.6	40.5	13.4	12.4
EDP Renováveis SA	Spain	9,277	19.9	16.0	9.6	8.8
Encavis AG	Germany	2,949	30.2	26.5	14.2	12.7
Enefit Green Energy	Estonia	745	14.1	12.9	10.2	9.0
Polaris Renewable Energy Inc	Canada	187	32.4	11.5	5.1	4.6
RENOVA Inc	Japan	373	9.4	17.1	14.9	10.7
Serena Energia SA	Brazil	746	-	59.0	8.2	7.8
Average (Trimmed 10% - 90%)			23.9	22.4	10.3	8.7
AYDEM		345	18.6	13.0	6.4	6.2
Premium / Discount			-22%	-42%	-38%	-28%

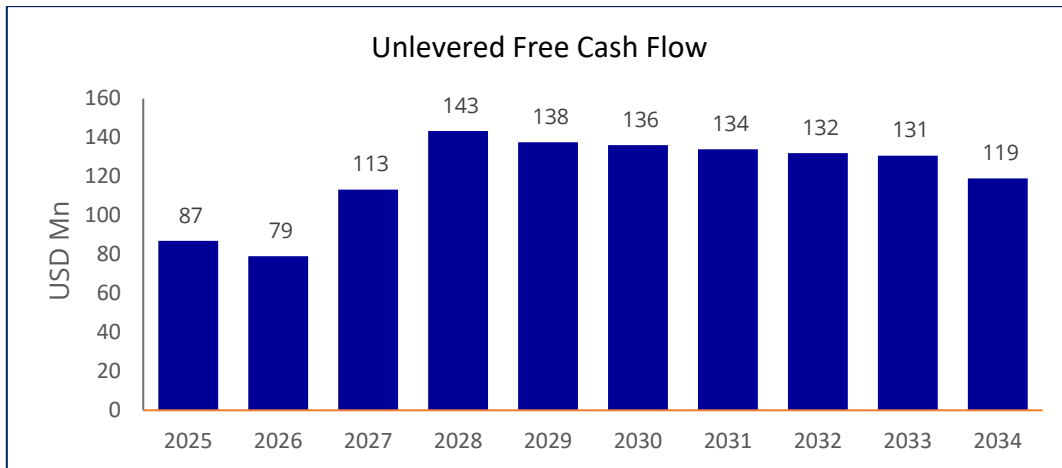
Valuation

The tables below display our unlevered free cash flow calculations and WACC calculation assumptions until 2034.

Valuation (USD Mn)	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
EBIT	71.2	74.3	79.2	83.7	83.7	83.4	83.1	82.8	82.6	82.2
Depreciation	75.4	76.4	77.0	77.0	74.9	74.6	74.3	74.1	73.9	73.6
EBITDA	146.6	150.7	156.2	160.6	158.5	158.0	157.4	156.9	156.6	155.8
Cash Taxes	6.2	8.8	11.0	13.5	15.1	16.7	18.2	19.7	20.8	21.6
Capital Expenditure	2.7	63.8	34.3	5.0	5.0	5.0	5.0	5.0	5.0	14.9
Change in Net Working Capital	24.0	-1.0	-2.4	-1.1	0.8	0.2	0.2	0.2	0.1	0.3
Unlevered Free Cash Flow (FCFF)	161.8	77.1	108.6	141.2	139.3	136.5	134.5	132.4	131.0	119.6
Discount Rate	9.5%	9.7%	10.0%	10.2%	10.5%	10.8%	11.2%	11.6%	11.8%	11.8%
Present Value of FCFF	79.3	65.7	85.7	98.4	85.5	76.3	67.6	59.7	52.9	43.1

WACC Assumptions	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Risk Free Rate	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Equity Risk Premium	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Weight of Debt	42.8%	39.2%	35.3%	30.6%	25.4%	19.7%	13.1%	5.6%	2.4%	2.4%
Weight of Equity	57.2%	60.8%	64.7%	69.4%	74.6%	80.3%	86.9%	94.4%	97.6%	97.6%
Debt / Equity	74.7%	64.5%	54.5%	44.1%	34.1%	24.5%	15.1%	5.9%	2.5%	2.5%
Beta	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Tax Rate	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Cost of Debt	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Cost of Equity	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%
WACC	9.5%	9.7%	10.0%	10.2%	10.5%	10.8%	11.2%	11.6%	11.8%	11.8%

There is a notable spike in capex in the final year (2034), causing a drop in free cash flow. This reflects the assumption that, over the long term, the company will need to allocate capital for replacement investments to maintain operational efficiency.



The assumptions used in our valuation model are presented in the table below. The 12-month forward USD/TRY exchange rate forecast was determined based on the Central Bank surveys and our research team's expectations.

Assumptions	
Perpetual Growth Rate	1%
USDTRY (Current)	38.00
USDTRY 12M Target	44.40

Calculating Target Price (Mn USD)	
Enterprise Value	1,118
Cash and Cash Equivalents (+)	95
Debt (-)	690
Fair Value	524
12M Target Market Cap	574
Shares Outstanding (Mn)	705

12 Month Target Price (USD)	0.81
12 Month Target Price (TL)	36.10
Current Price (TL)	18.55
Upside Potential (TL)	95%

Cash, financial investments and debt as of 31.12.2024

The table below shows how our target price changes for varying electricity market prices and terminal growth rates.

Projected Target Price (TRY)		Electricity Market Price (USD/MWh)		
		64	67	70
Terminal Growth Rate	0%	30.60	33.50	36.40
	1%	33.10	36.10	39.20
	2%	36.10	39.30	42.50

We see significant upside potential for Aydem, even under conservative assumptions. In our worst-case scenario, with electricity prices at 64 USD/MWh and a 0% terminal growth rate, the stock still offers a 65% upside potential. On the contrary, if electricity prices reach 70 USD/MWh with a 2% growth rate, the upside expands to 129%. Furthermore, if Aydem successfully executes its optional 500 MW solar and wind power plant investments, the potential for additional upside could be even greater.

Methodology

The target value of a stock represents the value that the analyst expects to be reached at the end of our 12-month performance period.

Outperform (OP)

If this decision is made for a company, it indicates that better returns are expected for the stock compared to the index in the medium and long term. However, this decision does not guarantee that the stock will rise or outperform the index. Any changes in market conditions, developments in the macroeconomy, global economic developments, or news about the company after the report is published can change this decision.

In-Line with Index (IL)

If the decision of "In-Line with Index" is made for the relevant stock, there can be various reasons for this. This decision may have been made if the company's recent data and future estimates do not show significant differences compared to the past. The stock price of the company may be at levels close to what it should be in terms of valuations. Making an "In-Line with Index" decision for a stock does not mean that the stock will not move up or down. Generally, this decision indicates that in the medium and long term, a return similar to the index is expected for the stock. However, every new piece of news and change in market conditions can alter this decision.

Underperform (UP)

If the decision of "Underperform" is made for a stock, it indicates that weaker returns are expected in the medium and long term compared to the index. Even if the "Underperform" decision has been made for a stock, short-term price increases for the stock or short-term technical indicators giving a buy signal are possible. In some cases, even if returns are not expected from the stock in the medium and long term, short-term "Outperform" or "In-Line with Index" returns can be achieved when there is significant news, temporary profit increase news, or developments that will lead to a positive short-term price trend.

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