

Bulgarian Energy Holding EAD

The upgrade of Bulgarian Energy Holding EAD's (BEH) ratings to 'BB+' from 'BB' in March 2023 reflects BEH's revised Standalone Credit Profile (SCP) to 'bb' from 'b+', driven by strong financial results and substantially reduced leverage, and also improvements in the regulatory framework. BEH's SCP is notched up once for strong links with its sole owner, the Bulgarian state (BBB/Positive), to arrive at the 'BB+' IDR.

Key Rating Drivers

Improved SCP: Fitch has revised up BEH's SCP to 'bb' from 'b+' based on higher earnings, lower net debt and, as a result, substantially reduced financial leverage. This was driven by progressive liberalisation of the energy market and its full integration with neighbouring countries', allowing the group to benefit from a high power-price environment. We expect net leverage to remain solid for the rating in 2023-2025.

Better Regulatory Framework: The higher SCP also reflects an improved regulatory framework, which is relevant to a substantial part of BEH's business mix as on average 19% of EBITDA comes from regulated gas and electricity transmission. In our view, its SCP may further strengthen in the medium term, given the planned full liberalisation of the energy market, albeit also subject to BEH's financial policy and capex plan.

High Electricity Prices: An increase in the average energy sale price due to a growing share of free-market transactions (around 80% of generated volumes sold on unregulated market in 2022, compared with 75% in 2021, 65% in 2020) is the primary driver of our record EBITDA expectations for 2022.

Our rating case assumes EBITDA peaks in 2022 at around BGN4.4 billion before it trends lower to about BGN2.5 billion in 2025, still well above the long-term average, as markets normalise. In our view, BEH's merchant position allows for short-term profit maximisation, but is a rating constraint as it exposes the group to price risk and introduces volatility and unpredictability to cash flow.

Liberalisation on Track: After completion of the planned liberalisation of the energy market in Bulgaria, we expect BEH will be able to sell its entire generated volumes in the competitive market, which should be beneficial for profitability given the favourable position of most of its generation assets, particularly nuclear and hydro power plants, in the country's merit order.

Bulgaria's wholesale electricity market has been fully liberalised since June 2021, and the remaining retail part of it should transition to market terms by 2025. We view the ongoing liberalisation as beneficial for BEH's financial profile, especially given recent day-ahead market coupling, which enables Bulgarian energy prices to follow EU electricity market price dynamics.

Eliminating Public Supplier Burden: We expect the planned abolition of BEH's subsidiary NEK's public supplier function to improve the visibility of the group's financial results and enhance the transparency of regulations. The regulatory framework has already improved through establishing the Security of the Electricity System Fund (SESF), which successfully covered deficits arising from purchasing energy at regulated prices from producers and selling it to consumers at times of lower tariffs.

After withdrawing the public supplier function, NEK will become a purely hydro energy generator, which we consider positive for BEH's credit profile.

Ratings

Foreign Currency

Long-Term IDR BB+

Local Currency

Long-Term IDR BB+

Outlooks

Long-Term Foreign-Currency IDR Stable

Long-Term Local-Currency IDR Stable

Debt Rating

Senior Unsecured Debt - Long-Term Rating BB+

2035 Climate Vulnerability Score 43

[Click here for the full list of ratings](#)

Applicable Criteria

[Corporate Rating Criteria \(October 2022\)](#)

[Government-Related Entities Rating Criteria \(September 2020\)](#)

[Corporates Recovery Ratings and Instrument Ratings Criteria \(April 2021\)](#)

Related Research

[Central and Eastern European Integrated Utilities – Relative Credit Analysis \(March 2023\)](#)

[Utilities - Long-Term Climate Vulnerability Scores Update \(February 2023\)](#)

[EMEA Utilities Outlook 2023 \(December 2022\)](#)

[Top EMEA Integrated Utilities – Peer Review November 2022 \(November 2022\)](#)

[Spotlight: European Utilities Resilient to Windfall Tax, Political Risk Remains \(June 2022\)](#)

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Windfall Tax Limits Profits: The Bulgarian government introduced a generation price cap that differs for each energy source to limit the increase in electricity prices for customers. If the selling price exceeds the limit, the generator will pass the additional revenue to a special fund created to finance capped tariffs for end-customers. We expect around BGN1.1 billion of contribution from BEH to SESF in 2023 compared with BGN3.2 billion in 2022, assuming the price cap remains until June 2023 and wholesale prices decline thereafter. The measure aims to limit extraordinary profits of generation companies that benefit from high market prices.

Large Capex Plans: We expect BEH's capex (already high in 2021 at BGN1.7 billion) to remain large over 2023 and 2024 at BGN1.2 billion and BGN1.6 billion, respectively. This will be driven by spending on the construction of a gas interconnector between Bulgaria and Serbia, the expansion of underground gas storage in Chiren and the construction of a liquefied natural gas (LNG) terminal in Alexandroupolis. We expect it to normalise at BGN0.8 billion-BGN0.9 billion a year from 2025.

Support from State: BEH's Issuer Default Rating (IDR) reflects a one-notch uplift from its SCP for strong links with the Bulgarian state (BBB/Positive). Under our *Government-Related Entities Rating Criteria*, we view the status, ownership and control links between BEH and the Bulgarian state as 'Strong', and the support track record and socio-political and financial implications of a BEH default as 'Moderate'. These all lead to a support score of 17.5, which allows a one-notch uplift to BEH's SCP as it is not constrained by a cap defined as the sovereign rating minus one notch given the current rating differential between the state and BEH.

Financial Summary

(BGNm)	2019	2020	2021	2022F	2023F	2024F
EBITDA	990	930	2,756	4,449	2,575	2,845
Funds flow from operations	1,000	967	2,923	3,803	2,198	2,454
Free cash flow after acquisitions and divestitures	-52	-667	967	1,486	-2,235	-145
FFO net leverage	4.6	4.4	0.9	0.4	1.6	1.5
FFO interest coverage	11.1	10.8	23.5	21.3	12.0	15.4

F = Forecast

Source: Fitch Ratings, Fitch Solutions

Rating Derivation Relative to Peers

BEH has a leading position in the Bulgarian gas and electricity market through its ownership of most of Bulgaria's power generation assets (including a nuclear power plant, lignite-fired and hydro power plants), the country's largest mining company, the country's electricity transmission network, gas transmission and transit networks and through its position as the public supplier of both electricity and gas in Bulgaria.

BEH's integrated business structure and strategic position in the domestic market makes the group comparable to some of its central European peers such as MVM Zrt. (BBB/Negative) and PGE Polska Grupa Energetyczna S.A. (BBB+/Stable). However, BEH is a negative outlier in the peer group in corporate governance and cash flow predictability resulting from the high merchant exposure of its generation assets, which is not mitigated through quasi-regulated capacity payments, as for PGE, or through a substantial regulated business.

The progressive liberalisation of the Bulgarian energy market, combined with its coupling with neighbouring countries' energy markets, substantially increases BEH's profitability in the current price environment, and in our view improves regulatory transparency.

BEH's rating includes a one-notch uplift from its SCP to reflect links with the sovereign, whereas this is not the case for MVM or PGE.

Navigator Peer Comparison

Issuer	Business profile										Financial profile			
	IDR/Outlook	Operating Environment	Management and Corporate Governance		Revenue Visibility	Regulatory Environment	Market Position	Asset Base and Operations		Profitability and Cash Flow	Financial Structure	Financial Flexibility		
Bulgarian Energy Holding FAD	BB+/Sta	bbb	bbb	bbb	bbb	bbb+	bbb	bbb	bbb	bbb	bbb	bbb	bbb+	
ENE A S.A.	BBB/Neg	a-	bbb+	bbb+	bbb+	bbb	bbb	bbb	bb	bbb	a	bbb-	bbb-	
Energa S.A.	BBB+/Sta	a-	bbb+	bbb+	bbb+	bbb	bbb	bbb	bb	bbb	bbb	bbb	bbb	
MVM Zrt.	BBB/Neg	bbb+	bbb	bbb	bbb	bbb	bbb	bbb	bbb+	bbb-	a-	bbb+	bbb	
PGF Polska Grupa Energetyczna S.A.	BBB+/Sta	a	a	bbb	bbb	bbb	bbb+	bbb	bb	bbb	a	bbb	bbb+	
TAURON Polska Energia S.A.	BBB+/Sta	a-	bbb+	bbb+	bbb+	bbb	bbb	bbb	bb	bbb-	bbb	bbb	bbb	

Source: Fitch Ratings.

Importance: Higher (Red), Moderate (Blue), Lower (Light Blue)

Issuer	Business profile										Financial profile			
Name	IDR/Outlook	Operating Environment	Management and Corporate Governance		Revenue Visibility	Regulatory Environment	Market Position	Asset Base and Operations		Profitability and Cash Flow	Financial Structure	Financial Flexibility		
Bulgarian Energy Holding EAD	BB+/Sta	2.0	-2.0	1.0	-1.0	0.0	0.0	1.0	-1.0	2.0	0.0	0.0	0.0	
FNFA S.A.	BBB/Neg	2.0	1.0	1.0	1.0	0.0	0.0	-3.0	0.0	3.0	3.0	-1.0	0.0	
Energa S.A.	BBB+/Sta	1.0	0.0	0.0	0.0	1.0	1.0	-4.0	2.0	1.0	2.0	2.0	0.0	
MVM Zrt.	BBB/Neg	1.0	0.0	0.0	0.0	0.0	0.0	1.0	-1.0	2.0	1.0	1.0	0.0	
PGF Polska Grupa Energetyczna S.A.	BBB+/Sta	1.0	1.0	1.0	-1.0	1.0	0.0	-4.0	-1.0	2.0	2.0	0.0	0.0	
TAURON Polska Energia S.A.	BBB+/Sta	3.0	2.0	2.0	2.0	1.0	1.0	-2.0	0.0	1.0	1.0	1.0	0.0	

Source: Fitch Ratings.

Legend: Red = Worse positioned than IDR, Blue = In line with IDR, Light Blue = Better positioned than IDR

Rating Sensitivities

Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade:

- Stronger SCP due to funds from operations (FFO) net leverage falling below 3.5x on a sustained basis, and supported by an internal corresponding leverage target, lower regulatory and political risk, higher earnings predictability, and better corporate governance
- Further tangible government support to BEH, such as additional state guarantees materially increasing the share of state-guaranteed debt, or cash injections, which would more tightly link BEH's credit profile with Bulgaria's stronger credit profile
- Upgrade of Bulgaria by two notches

Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade:

- Weaker SCP, for example due to FFO net leverage exceeding 4.5x on a sustained basis, escalation of regulatory and political risk, or insufficient liquidity
- Weaker links with the Bulgarian state

Liquidity and Debt Structure

Healthy Liquidity: At end-June 2022 BEH had BGN3.2 billion of unrestricted cash and equivalents and BGN0.4 billion of Fitch-projected negative free cash flow (FCF) after acquisitions in the next 12 months from July 2022. This compares with short-term debt maturities of BGN0.4 billion. The next large debt maturity is in June 2025, when a EUR600 million (BGN1.2 billion) bond matures.

ESG Considerations

BEH's corporate-governance limitations include a qualified audit opinion for the group's 2009-2021 consolidated financial statements, a fairly complex group structure, and lower financial transparency than EU peers'. These limitations are reflected in an ESG Relevance Score of '4' for group structure and financial transparency.

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

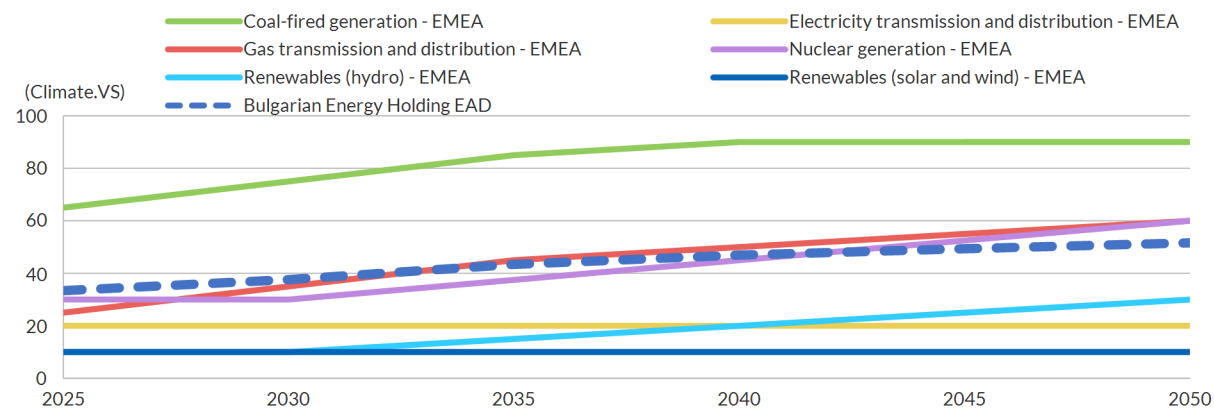
Climate Vulnerability Considerations

We are currently in consultation with our stakeholders on a proposal to support consistency and transparency in the way Fitch Ratings identifies and addresses potentially credit-relevant climate risks in its credit rating process. This would include adding the section below to all Rating Reports. To learn more about the approach, and provide feedback, please see [Climate Vulnerability in Corporate Ratings -Discussion Paper](#) or contact climate.vsfeedback@fitchratings.com.

The FY21 revenue-weighted Climate Vulnerability Score (Climate.VS) for Bulgarian Energy Holding for 2035 is 43 out of 100, suggesting moderate exposure to climate-related risks in that year. For further information on how Fitch perceives climate-related risks in utilities sector see [Utilities - Long-Term Climate Vulnerability Scores Update](#).

Climate.VS Evolution

As of Dec. 31, 2022



Source: Fitch Ratings

Liquidity and Debt Maturities

(BGNm)	2022F	2023F	2024F	2025F
Available liquidity				
Beginning cash balance	2,628	3,466	975	541
Rating case FCF after acquisitions and divestitures	1,486	-2,235	-145	-308
Total available liquidity (A)	4,115	1,231	829	234
Liquidity uses				
Debt maturities	-649	-256	-288	-2,278
Total liquidity uses (B)	-649	-256	-288	-2,278
Liquidity calculation				
Ending cash balance (A+B)	3,466	975	541	-2,045
Revolver availability	0	0	0	0
Ending liquidity	3,466	975	541	-2,045
Liquidity score (x)	6.3	4.8	2.9	0.1

F – Forecast.

Source: Fitch Ratings, Fitch Solutions, Bulgarian Energy Holding EAD

Scheduled debt maturities (BGNm)	2021
2022	649
2023	256
2024	288
2025	2,278
2026	332
Thereafter	1,696
Total	5,499

Source: Fitch Ratings, Fitch Solutions, Bulgarian Energy Holding EAD

Key Assumptions

Fitch's Key Assumptions within Our Rating Case for the Issuer:

- Group EBITDA averaging BGN3 billion a year over 2022-2026
- Total capex at BGN6.1 billion over 2022-2026
- Dividends at 100% of net income during 2023-2026
- State-provided financing to subsidiary Bulgargaz (BGN800 million) in 2022

Financial Data

Bulgarian Energy Holding EAD

(BGNm)	Historical			Forecast		
	2019	2020	2021	2022	2023	2024
Summary income statement						
Gross revenue	5,318.0	4,461.5	9,301.9	21,949.9	12,876.1	15,806.3
Revenue growth (%)	-8.1	-16.1	108.5	136.0	-41.3	22.8
EBITDA (before income from associates)	989.5	930.1	2,755.8	4,449.4	2,575.2	2,845.1
EBITDA margin (%)	18.6	20.8	29.6	20.3	20.0	18.0
EBITDAR	990.7	930.1	2,755.8	4,449.4	2,575.2	2,845.1
EBITDAR margin (%)	18.6	20.8	29.6	20.3	20.0	18.0
EBIT	389.6	302.5	2,036.0	3,633.1	1,740.8	1,984.3
EBIT margin (%)	7.3	6.8	21.9	16.6	13.5	12.6
Gross interest expense	-105.7	-104.2	-129.0	-183.8	-198.2	-169.5
Pretax income (including associate income/loss)	419.2	195.1	1,563.8	3,513.6	1,312.8	1,582.2
Summary balance sheet						
Readily available cash and equivalents	1,236.8	1,030.6	2,628.3	3,392.4	881.7	430.6
Debt	6,304.2	5,740.0	5,498.9	4,850.1	4,593.7	4,305.5
Lease-adjusted debt	6,312.6	5,740.0	5,498.9	4,850.1	4,593.7	4,305.5
Net debt	5,067.4	4,709.4	2,870.6	1,457.7	3,711.9	3,874.9
Summary cash flow statement						
EBITDA	989.5	930.1	2,755.8	4,449.4	2,575.2	2,845.1
Cash interest paid	-98.3	-98.8	-129.6	-183.8	-198.2	-169.5
Cash tax	-84.4	-72.1	-181.3	-527.0	-196.9	-237.3
Dividends received less dividends paid to minorities (inflow/(out)flow)	8.1	9.3	11.1	0.0	0.0	0.0
Other items before FFO	177.4	197.3	465.8	0.0	0.0	0.0
Funds flow from operations	1,000.1	967.3	2,922.5	3,802.8	2,198.2	2,453.5
FFO margin (%)	18.8	21.7	31.4	17.3	17.1	15.5
Change in working capital	56.9	-34.3	-246.5	-1,209.9	-76.9	125.3
Cash flow from operations (Fitch defined)	1,057.0	933.0	2,676.0	2,593.0	2,121.3	2,578.8
Total non-operating/nonrecurring cash flow	—	-5.6	-5.9	—	—	—
Capex	-1,110.6	-1,595.4	-1,700.1	—	—	—
Capital intensity (capex/revenue) (%)	20.9	35.8	18.3	—	—	—
Common dividends	0.0	—	—	—	—	—
Free cash flow	-53.6	-668.0	970.0	—	—	—
Net acquisitions and divestitures	1.6	1.4	-3.2	—	—	—
Other investing and financing cash flow items	-14.8	-161.2	75.9	—	—	—
Net debt proceeds	324.3	651.4	555.0	-648.8	-256.4	-288.2
Net equity proceeds	—	—	—	0.0	0.0	0.0
Total change in cash	257.5	-176.4	1,597.7	764.1	-2,510.7	-451.2
Leverage ratios (x)						
EBITDA leverage	6.3	6.1	2.0	1.1	1.8	1.5
EBITDA net leverage	5.1	5.0	1.0	0.3	1.4	1.4
EBITDAR leverage	6.3	6.1	2.0	1.1	1.8	1.5
EBITDAR net leverage	5.1	5.0	1.0	0.3	1.4	1.4
FFO adjusted leverage	5.8	5.4	1.8	1.2	1.9	1.7
FFO adjusted net leverage	4.6	4.4	0.9	0.4	1.6	1.5
FFO leverage	5.8	5.4	1.8	1.2	1.9	1.7
FFO net leverage	4.6	4.4	0.9	0.4	1.6	1.5
Calculations for forecast publication						
Capex, dividends, acquisitions and other items before FCF	-1,109.0	-1,599.6	-1,709.2	-1,106.5	-4,356.0	-2,724.2
Free cash flow after acquisitions and divestitures	-52.0	-666.6	966.8	1,486.4	-2,234.6	-145.4
Free cash flow margin (after net acquisitions) (%)	-1.0	-14.9	10.4	6.8	-17.4	-0.9

(BGN m)	Historical			Forecast		
	2019	2020	2021	2022	2023	2024
Coverage ratios (x)						
FFO interest coverage	11.1	10.8	23.5	21.3	12.0	15.4
FFO fixed charge coverage	11.0	10.8	23.5	21.3	12.0	15.4
EBITDAR fixed charge coverage	10.0	9.5	21.4	24.2	13.0	16.8
EBITDA interest coverage	10.1	9.5	21.4	24.2	13.0	16.8
Additional metrics						
CFO-capex/debt (%)	-0.9	-11.5	17.7	34.6	17.0	18.0
CFO-capex/net debt (%)	-1.1	-14.1	34.0	115.1	21.0	20.0
CFO/capex (%)	95.2	58.5	157.4	283.1	158.0	143.0

Source: Fitch Ratings, Fitch Solutions, Bulgarian Energy Holding EAD

How to Interpret the Forecast Presented

The forecast presented above is based on Fitch Ratings' internally produced, conservative rating case forecast. It does not represent the forecast of the rated issuer. The forecast set out above is only one component used by Fitch Ratings to assign a rating or determine a rating outlook, and the information in the forecast reflects material but not exhaustive elements of Fitch Ratings' rating assumptions for the issuer's financial performance. As such, it cannot be used to establish a rating, and it should not be relied on for that purpose. Fitch Ratings' forecasts are constructed using a proprietary internal forecasting tool, which employs Fitch Ratings' own assumptions on operating and financial performance that may not reflect the assumptions that you would make. Fitch Ratings' own definitions of financial terms such as EBITDA, debt or free cash flow may differ from your own such definitions. Fitch Ratings may be granted access, from time to time, to confidential information on certain elements of the issuer's forward planning. Certain elements of such information may be omitted from this forecast, even where they are included in Fitch Ratings' own internal deliberations, where Fitch Ratings, at its sole discretion, considers the data may be potentially sensitive in a commercial, legal or regulatory context. The forecast (as with the entirety of this report) is produced strictly subject to the disclaimers set out at the end of this report. Fitch Ratings may update the forecast in future reports but assumes no responsibility to do so. Original financial statement data for historical periods is processed by Fitch Solutions on behalf of Fitch Ratings. Key financial adjustments and all financial forecasts credited to Fitch Ratings are generated by rating agency staff.

Ratings Navigator

FitchRatings

Bulgarian Energy Holding EAD

ESG Relevance: 

Corporates Ratings Navigator

EMEA Utilities

Factor Levels	Sector Risk Profile	Operating Environment	Business Profile				Financial Profile				Issuer Default Rating		
			Management and Corporate Governance	Revenue Visibility	Regulatory Environment	Market Position	Asset Base and Operations	Profitability and Cash Flow	Financial Structure	Financial Flexibility			
aaa												AAA	
aa+												AA+	
aa												AA	
aa-												AA-	
a+												A+	
a												A	
a-												A-	
bbb+												BBB+	
bbb												BBB	
bbb-												BBB-	
bb+												BB+	Stable
bb												BB	
bb-												BB-	
b+												B+	
b												B	
b-												B-	
ccc+												CCC+	
ccc												CCC	
ccc-												CCC-	
cc												CC	
c												C	
d or rd												D or RD	

Bar Chart Legend:

Vertical Bars = Range of Rating Factor Bar Arrows = Rating Factor Outlook

Bar Colors = Relative Importance

- Higher Importance
- Average Importance
- Lower Importance

- ↑ Positive
- ↓ Negative
- ↕ Evolving
- Stable

Operating Environment

bbb+	Economic Environment	bbb	Average combination of countries where economic value is created and where assets are located.
bbb	Financial Access	bbb	Average combination of issuer-specific funding characteristics and the strength of the relevant local financial market.
	Systemic Governance	bbb	Systemic governance (eg rule of law, corruption, government effectiveness) of the issuer's country of incorporation consistent with 'bbb'.
b-			
ccc+			

Revenue Visibility

bbb-	Size and Integration	bbb	Top-tier position in at least one market. Partially integrated (typically including generation, distribution and supply).
bb+	Earnings from Regulated Network Assets	bb	Less than 25% of EBITDA comes from high-quality regulated network assets.
bb	Quasi-Regulated Earnings	bb	Less than 10% of EBITDA comes from quasi-regulated assets or from long-term contracted sales with creditworthy counterparties.
bb-			
b+			

Market Position

bbb	Fundamental Market Trends	bb	Markets with structural challenges.
bbb-	Generation and Supply Positioning	a	Strong position in the merit order; effective hedging; flexible fuel procurement. Generation balanced with strong position in supply and services.
bb+	Customer Base and Counterparty Risk	bb	Structurally challenged economy in area served; high counterparty risk; supply operations with high doubtful debt levels.
bb			
bb-			

Profitability and Cash Flow

bbb-	Free Cashflow	bb	Structurally negative FCF across the investment cycle.
bb+	Volatility of Profitability	bb	Lower stability and predictability of profits than utility peers.
bb			
bb-			
b+			

Financial Flexibility

bbb	Financial Discipline	bb	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
bbb-	Liquidity	bbb	One-year liquidity ratio above 1.25x. Well-spread debt maturity schedule but funding may be less diversified.
bb+	FFO Interest Coverage	a	5.5x
bb	FX Exposure	bb	FX exposure on profitability and/or debt/cash flow match. Some hedging but only partly effective.
bb-			

How to Read This Page: The left column shows the three-notch band assessment for the overall Factor, illustrated by a bar. The right column breaks down the Factor into Sub-Factors, with a description appropriate for each Sub-Factor and its corresponding category.

Management and Corporate Governance

bb+	Management Strategy	bb	Strategy generally coherent but some evidence of weak implementation.
bb	Governance Structure	bb	Board effectiveness questionable, with few independent directors. "Key Person" risk from dominant CEO or shareholder.
bb-	Group Structure	bb	Complex group structure or non-transparent ownership structure. Related-party transactions exist but with reasonable economic rationale.
b+	Financial Transparency	b	Defective financial reporting. Aggressive accounting policies.
b			

Regulatory Environment

bbb	Regulatory Framework and Policy Risk	bb	Opaque or overly demanding frameworks with limited track record, short-term tariffs; significant political risk.
bbb-	Cost Recovery and Risk Exposure	bbb	Tariff setting that may limit efficiently incurred cost and investment recovery, with moderate regulatory lag, price and volume risk.
bb+			
bb			
bb-			

Asset Base and Operations

bbb+	Asset Quality	bbb	Mid-range asset quality not likely to affect opex and capex requirements compared with peers.
bbb	Asset Diversity	bb	Limited diversification by geography, generation source, supplied product.
bbb-	Carbon Exposure	bbb	Energy production balanced between clean and thermal sources; medium carbon exposure (< 450gCO2/kWh).
bb+			
bb			

Financial Structure

a-	FFO Leverage	bbb	5.0x
bbb+	FFO Net Leverage	bbb	4.5x
bbb			
bbb-			
bb+			

Credit-Relevant ESG Derivation

Bulgarian Energy Holding EAD has 2 ESG rating drivers and 10 ESG potential rating drivers				Overall ESG
key driver	0	issues	5	
driver	2	issues	4	
potential driver	10	issues	3	
not a rating driver	2	issues	2	
	0	issues	1	

- ➔ Complexity, transparency and related-party transactions
- ➔ Quality and timing of financial disclosure
- ➔ Emissions from operations
- ➔ Fuel use to generate energy
- ➔ Impact of waste from operations
- ➔ Plants' and networks' exposure to extreme weather

Showing top 6 issues

For further details on Credit-Relevant ESG scoring, see page 3.

Credit-Relevant ESG Derivation

Bulgarian Energy Holding EAD has 2 ESG rating drivers and 10 ESG potential rating drivers

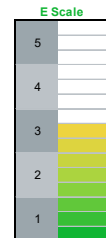
- ➔ Bulgarian Energy Holding EAD has exposure to group transparency risk which, in combination with other factors, impacts the rating.
- ➔ Bulgarian Energy Holding EAD has exposure to financial disclosure risk which, in combination with other factors, impacts the rating.
- ➔ Bulgarian Energy Holding EAD has exposure to emissions regulatory risk but this has very low impact on the rating.
- ➔ Bulgarian Energy Holding EAD has exposure to energy productivity risk but this has very low impact on the rating.
- ➔ Bulgarian Energy Holding EAD has exposure to waste & impact management risk but this has very low impact on the rating.
- ➔ Bulgarian Energy Holding EAD has exposure to extreme weather events but this has very low impact on the rating.

Show top 6 issues

				Overall ESG Scale	
key driver	0	issues	5		
driver	2	issues	4		
potential driver	10	issues	3		
not a rating driver	2	issues	2		
	0	issues	1		

Environmental (E)

General Issues	E Score	Sector-Specific Issues	Reference
GHG Emissions & Air Quality	3	Emissions from operations	Asset Base and Operations; Profitability and Cash Flow
Energy Management	3	Fuel use to generate energy	Asset Base and Operations; Market Trends and Risks; Profitability and Cash Flow
Water & Wastewater Management	2	Water used by hydro plants or by other generation plants; effluent management	Asset Base and Operations; Market Trends and Risks; Profitability and Cash Flow
Waste & Hazardous Materials Management; Ecological Impacts	3	Impact of waste from operations	Asset Base and Operations; Profitability and Cash Flow
Exposure to Environmental Impacts	3	Plants' and networks' exposure to extreme weather	Asset Base and Operations; Profitability and Cash Flow



How to Read This Page

ESG scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant and green (1) is least relevant.

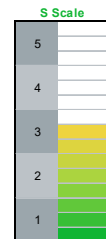
The Environmental (E), Social (S) and Governance (G) tables break out the individual components of the scale. The right-hand box shows the aggregate E, S, or G score. General Issues are relevant across all markets with Sector-Specific Issues unique to a particular industry group. Scores are assigned to each sector-specific issue. These scores signify the credit-relevance of the sector-specific issues to the issuing entity's overall credit rating. The Reference box highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis.

The Credit-Relevant ESG Derivation table shows the overall ESG score. This score signifies the credit relevance of combined E, S and G issues to the entity's credit rating. The three columns to the left of the overall ESG score summarize the issuing entity's sub-component ESG scores. The box on the far left identifies the some of the main ESG issues that are drivers or potential drivers of the issuing entity's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the score.

Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Principles for Responsible Investing (PRI) and the Sustainability Accounting Standards Board (SASB).

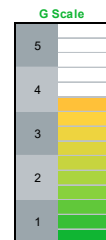
Social (S)

General Issues	S Score	Sector-Specific Issues	Reference
Human Rights, Community Relations, Access & Affordability	3	Product affordability and access	Profitability and Cash Flow; Regulation
Customer Welfare - Fair Messaging, Privacy & Data Security	3	Quality and safety of products and services; data security	Profitability and Cash Flow
Labor Relations & Practices	3	Impact of labor negotiations and employee (dis)satisfaction	Profitability and Cash Flow; Financial Structure; Financial Flexibility
Employee Wellbeing	2	Worker safety and accident prevention	Profitability and Cash Flow; Financial Structure; Financial Flexibility
Exposure to Social Impacts	3	Social resistance to major projects that leads to delays and cost increases	Asset Base and Operations; Profitability and Cash Flow



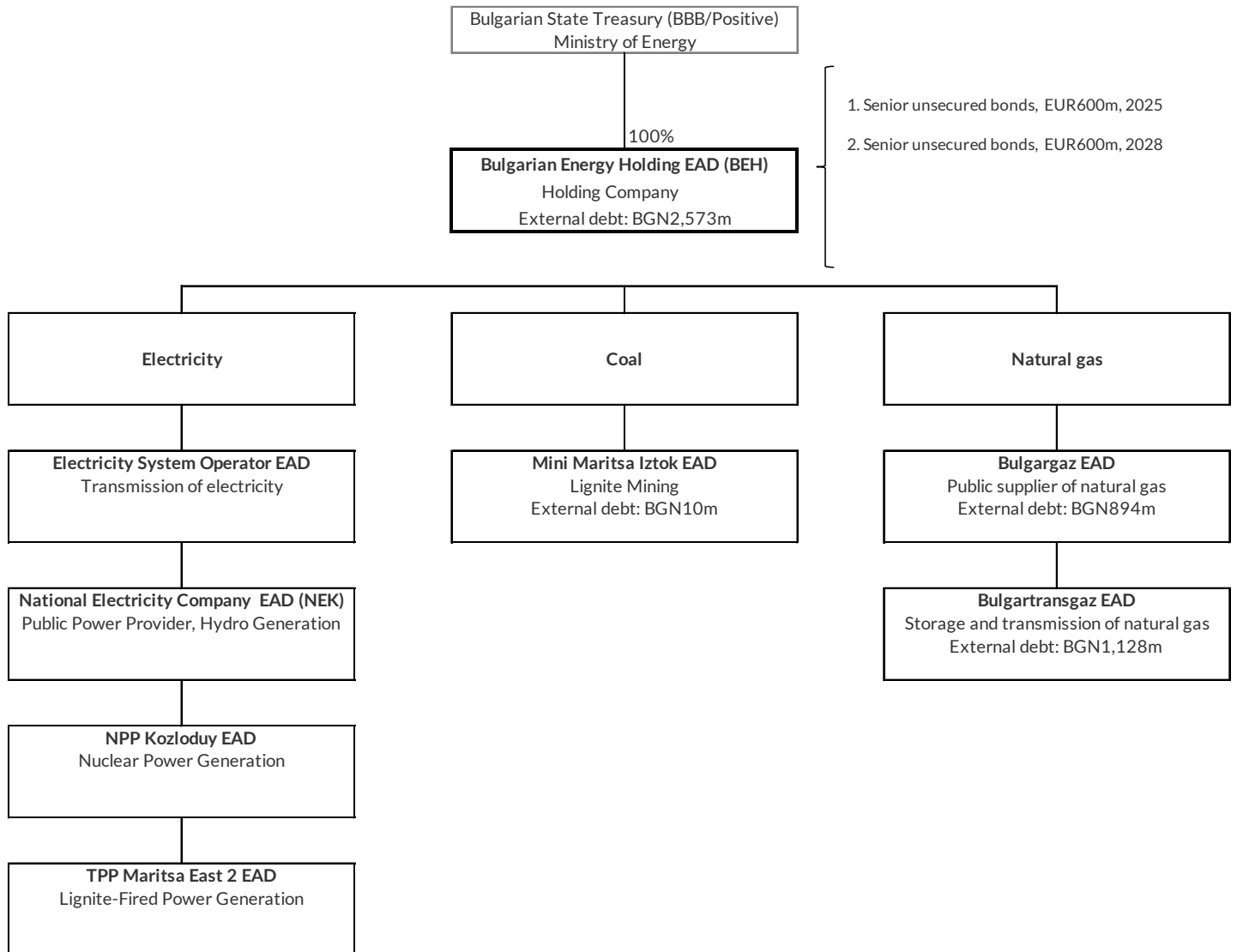
Governance (G)

General Issues	G Score	Sector-Specific Issues	Reference
Management Strategy	3	Strategy development and implementation	Management and Corporate Governance
Governance Structure	3	Board independence and effectiveness; ownership concentration	Management and Corporate Governance
Group Structure	4	Complexity, transparency and related-party transactions	Management and Corporate Governance
Financial Transparency	4	Quality and timing of financial disclosure	Management and Corporate Governance



CREDIT-RELEVANT ESG SCALE	
How relevant are E, S and G issues to the overall credit rating?	
5	Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator.
4	Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator.
3	Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator.
2	Irrelevant to the entity rating but relevant to the sector.
1	Irrelevant to the entity rating and irrelevant to the sector.

Simplified Group Structure Diagram



Peer Financial Summary

Company	Issuer Default Rating	Financial statement date	EBITDA (EURm)	Funds from operations (EURm)	Free cash flow (EURm)	FFO net leverage	FFO interest coverage (x)
Bulgarian Energy Holding EAD	BB+						
	BB	2021	1,411	1,496	497	0.9	23.5
	BB	2020	480	499	-344	4.4	10.8
	BB	2019	506	511	-27	4.6	11.1
ENEA S.A.	BBB						
	BBB	2022	475	365	-338	2.0	11.3
	BBB	2021	781	613	730	1.0	19.8
	BBB	2020	729	574	104	2.3	10.8
Energia S.A.	BBB+						
	BBB-	2021	506	360	156	2.3	11.2
	BBB-	2020	432	354	-18	2.8	6.6
	BBB	2019	456	347	-188	3.0	6.0
MVM Zrt.	BBB						
	BBB	2021	683	514	1,089	-0.6	20.6
		2020	544	448	316	1.7	28.1
	BBB-	2019	587	397	-232	2.5	38.5
TAURON Polska Energia S.A.	BBB-						
	BBB-	2021	849	719	290	3.0	10.4
	BBB	2020	840	821	-45	3.1	10.7
	BBB+	2019	788	587	-531	4.3	7.3
PGE Polska Grupa Energetyczna S.A.	BBB+						
	BBB+	2021	1,725	1,621	508	0.4	24.5
	BBB+	2020	1,346	1,149	865	1.2	16.5
	BBB+	2019	1,529	1,338	-118	1.7	19.0

Source: Fitch Ratings, Fitch Solutions, Bulgarian Energy Holding EAD

Fitch Adjusted Financials

(BGNm)	Notes and formulas	Reported values	Sum of adjustments	CORP- lease treatment	Other adjustments	Adjusted values
31 Dec 21						
Income statement summary						
Revenue		9,302				9,302
EBITDAR		2,757	-1	-1	0	2,756
EBITDAR after associates and minorities	(a)	2,768	-1	-1	0	2,767
Lease expense	(b)	0				0
EBITDA	(c)	2,757	-1	-1	0	2,756
EBITDA after associates and minorities	(d) = (a-b)	2,768	-1	-1	0	2,767
EBIT	(e)	2,036		0	0	2,036
Debt and cash summary						
Other off-balance-sheet debt	(f)	0				0
Debt ^b	(g)	3,867	1,632	-2	1,634	5,499
Lease-equivalent debt	(h)	0				0
Lease-adjusted debt	(i) = (g+h)	3,867	1,632	-2	1,634	5,499
Readily available cash and equivalents	(j)	2,628				2,628
Not readily available cash and equivalents		305				305
Cash flow summary						
EBITDA after associates and minorities	(d) = (a-b)	2,768	-1	-1	0	2,767
Preferred dividends (paid)	(k)	0				0
Interest received	(l)	1				1
Interest (paid)	(m)	-130		0	0	-130
Cash tax (paid)		-181				-181
Other items before FFO		466				466
Funds from operations (FFO)	(n)	2,923	-1	-1	0	2,923
Change in working capital (Fitch-defined)		-247				-247
Cash flow from operations (CFO)	(o)	2,677	-1	-1	0	2,676
Non-operating/nonrecurring cash flow		(6)				-6
Capital (expenditures)	(p)	-1,700				-1,700
Common dividends (paid)		0				0
Free cash flow (FCF)		971	-1	-1	0	970
Gross leverage (x)						
EBITDAR leverage ^a	(i/a)	1.4				2.0
FFO adjusted leverage	(i)/(n-m-l-k+b)	1.3				1.8
FFO leverage	(i-h)/(n-m-l-k)	1.3				1.8
EBITDA leverage ^a	(i-h)/d	1.4				2.0
(CFO-capex)/debt (%)	(o+p)/(i-h)	25.3%				17.7%
Net leverage (x)						
EBITDAR net leverage ^a	(i-j)/a	0.4				1.0
FFO adjusted net leverage	(i-j)/(n-m-l-k+b)	0.4				0.9
FFO net leverage	(i-h-j)/(n-m-l-k)	0.4				0.9
EBITDA net leverage ^a	(i-h-j)/d	0.4				1.0
(CFO-capex)/net debt (%)	(o+p)/(i-h-j)	78.9%				34.0%
Coverage (x)						
EBITDAR fixed charge coverage ^a	a/(-m+b)	21.4				21.4
EBITDA interest coverage ^a	d/(-m)	21.4				21.4
FFO fixed-charge coverage	(n-l-m-k+b)/(-m-k+b)	23.6				23.5
FFO interest coverage	(n-l-m-k)/(-m-k)	23.6				23.5

^aEBITDA/R after dividends to associates and minorities.

^bIncludes Other Off Balance Sheet Debt.

Source: Fitch Ratings, Fitch Solutions, Bulgarian Energy Holding EAD

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