8 April 2024

Lyse AS Kingdom of Norway, Utilities

Key metrics

	Scope estimates			
Scope credit ratios	2022	2023	2024E	2025E
Scope-adjusted EBITDA/interest cover	23.3x	16.7x	8.3x	8.8x
Scope-adjusted debt/EBITDA	1.2x	2.3x	2.8x	2.7x
Scope-adjusted funds from operations/debt	65%	16%	19%	22%
Scope-adjusted free operating cash flow/debt	48%	-20%	-6%	0%

Rating rationale

The rating reflects continued good credit metrics despite ongoing high investments and more normalised power price levels, with Scope-adjusted debt/EBITDA forecasted to stay between 2.5x-3.0x in 2024-2026. The rating remains supported by Lyse's diversified business model, reflecting its volatile but environmentally-friendly and low-cost hydropower production (positive ESG factor), which is balanced with more stable activities in telecommunications and monopolistic power distribution.

The A- issuer rating incorporates a one-notch uplift to the standalone credit assessment of BBB+ based on our assessment of Lyse's government-related entity (GRE) status.

Outlook and rating-change drivers

The Stable Outlook reflects our view that Lyse will maintain its diversified business model within hydropower production, power distribution and telecommunications. It further anticipates that Lyse will maintain strong liquidity, Scope-adjusted debt/EBITDA below 3.0x, and an unchanged ownership structure.

A positive rating action could be warranted if Lyse improved its business risk profile while keeping credit metrics at current good levels, most likely requiring successful materialisation of growth within mobile services. Alternatively, a positive rating action could be possible if Scope-adjusted debt/EBITDA was sustained at 1.0x or below.

A negative rating action may be triggered if Scope-adjusted debt/EBITDA deteriorated to 3.0x and above on a sustained basis. This could be driven by increased investments well beyond our current rating case and/or lower-than-assumed power prices. Lastly, the loss of GRE status (remote) would also lead to ratings pressure.

Rating history

Date	Rating action/monitoring review	Issuer rating & Outlook
8 Apr 2024	Affirmation	A-/Stable
3 Apr 2023	Upgrade	A-/Stable
1 Apr 2022	Affirmation	BBB+/Stable

Ratings & Outlook

Issuer	A-/Stable
Short-term debt	S-1
Senior unsecured debt	A-

STABLE

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Related Methodologies

General Corporate Rating Methodology; October 2023

European Utilities Rating Methodology; March 2023

Government Related Entities Methodology; July 2023

Related Research

Energy Insight Europe; July 2023

Nordic utilities: north-south price gap benefits southern generators; TSOs also gain, November 2022

Telecommunication sector credit outlook stable on resilient cash flow; February 2024

ESG considerations for the credit ratings of utilities; April 2021

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Rating and rating-change drivers

Positive rating drivers	Negative rating drivers
 Sizeable, diversified business model as a fully integrated utility and telecommunications operator which helps to stabilise overall performance Low-cost, flexible and environmentally friendly hydropower production (positive ESG factor) with large water reservoir capacity Leading domestic market position in fibre-optic broadband and fibre-related television services Existing fiber-optic network across Norway enables costefficient expansion of mobile network to national 5G coverage Strong profitability Good credit metrics and solid liquidity GRE status: long-term committed municipal owners with capacity and willingness to provide financial support if needed 	 High merchant risk in power production given exposure to volatile power prices Investment phase in telecommunications business, which puts pressure on short- and medium-term cash flows Some execution risk related to growth in telecommunications, particularly in the mobile segment Exposure to political risk – exemplified by an unpredictable taxation framework for Norwegian power producers in recent years and ongoing discussions about potential regulation of fibre-optic networks Moderate geographical diversification (i.e. all cash flow generated in one country)
Positive rating-change drivers	Negative rating-change drivers
 Leverage (Scope-adjusted debt/ERITDA) sustained at 1 0x 	Weakened financial risk profile with leverage (Scope-

- Leverage (Scope-adjusted debt/EBITDA) sustained at 1.0x
 or below
- Improved business risk profile, possibly through successful materialisation of growth in mobile services, while keeping credit metrics at current good levels
- Weakened financial risk profile with leverage (Scopeadjusted debt/EBITDA) sustained at 3.0x or above
- Loss of GRE status (remote)

Corporate profile

Lyse is a diversified Norwegian utility and telecommunications company owned by 14 municipalities in southwestern Norway. It operates a fully integrated utility business, reflecting its position as one of the major domestic producers of hydropower through the 74.4% ownership in Lyse Kraft DA, in combination with activities in power distribution and energy retail as well as some smaller district heating and cooling operations. In telecommunications, the company is the largest provider of fibre-optic broadband and fibre-related television services in Norway, and it also entered the mobile segment recently after acquiring Ice in 2022.

Lyse AS

Kingdom of Norway, Utilities

Financial overview

SCOPE

				Scope estimates		
Scope credit ratios	2021	2022	2023	2024E	2025E	2026E
Scope-adjusted EBITDA/interest cover	17.7x	23.3x	16.7x	8.3x	8.8x	9.3x
Scope-adjusted debt/EBITDA	1.7x	1.2x	2.3x	2.8x	2.7x	2.6x
Scope-adjusted funds from operations/debt	53%	65%	16%	19%	22%	24%
Scope-adjusted free operating cash flow/debt	25%	48%	-20%	-6%	0%	2%
Liquidity	>200%	>200%	>200%	>200%	>200%	>200%
Scope-adjusted EBITDA in NOK m						
EBITDA ¹	8,427	15,446	10,567	9,069	9,705	10,351
Other items ²	(1,150)	(3,773)	(2,056)	(1,465)	(1,481)	(1,497)
Scope-adjusted EBITDA	7,276	11,673	8,511	7,604	8,224	8,854
Funds from operations in NOK m						
Scope-adjusted EBITDA	7,276	11,673	8,511	7,604	8,224	8,854
less: (net) cash interest paid	(408)	(500)	(512)	(921)	(938)	(953)
less: cash tax paid per cash flow statement	(368)	(2,450)	(4,802)	(2,599)	(2,281)	(2,382)
Other items	(84)	114	(132)	-	-	-
Funds from operations	6,416	8,837	3,064	4,083	5,005	5,519
Free operating cash flow in NOK m						
Funds from operations	6,416	8,837	3,064	4,083	5,005	5,519
Change in working capital	(4)	1,644	(1,675)	(233)	93	82
Non-operating cash flow	(307)	400	68	-	-	-
less: capital expenditure (net)	(2,895)	(4,120)	(5,115)	(4,900)	(4,900)	(4,900)
less: lease amortisation	(163)	(212)	(286)	(286)	(286)	(286)
Free operating cash flow	3,047	6,548	(3,943)	(1,336)	(88)	416
Net cash interest paid in NOK m						
Net cash interest per cash flow statement	411	502	511	920	937	952
Change in other items	-	-	-	-	-	-
Net cash interest paid	411	502	511	920	937	952
Scope-adjusted debt in NOK m						
Reported gross financial debt	17,933	21,656	25,225	26,785	27,412	28,022
less: cash and cash equivalents	(6,466)	(8,862)	(6,190)	(5,528)	(5,154)	(5,242)
add: non-accessible cash	694	829	353	353	353	353
add: pension adjustment	38	2	-	-	-	-
Other items	-	-	-	-	-	-
Scope-adjusted debt	12,198	13,626	19,388	21,611	22,611	23,132

 ¹ Adjusted for unrealised changes in value on financial instruments.
 ² Adjustment for net cash effect from power generation outflow to non-controlling interests.

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Business model built around sustainable energy production

Environmental, social and governance (ESG) profile³

Environment		Social		Governance	
Resource management (e.g. raw materials consumption, carbon emissions, fuel efficiency)	2	Labour management		Management and supervision (supervisory boards and key person risk)	1
Efficiencies (e.g. in production)		Health and safety (e.g. staff and customers)		Clarity and transparency (clarity, quality and timeliness of financial disclosures, ability to communicate)	
Product innovation (e.g. transition costs, substitution of products and services, green buildings, clean technology, renewables)		Clients and supply chain (geographical/product diversification)		Corporate structure (complexity)	1
Physical risks (e.g. business/asset vulnerability, diversification)		Regulatory and reputational risks	Ø	Stakeholder management (shareholder payouts and respect for creditor interests)	

Legend

Green leaf (ESG factor: credit positive) Red leaf (ESG factor: credit negative) Grey leaf (ESG factor: credit neutral)

Lyse's low-cost, flexible hydropower production has a low carbon intensity of less than 3g CO2e/kWh which largely rules out transition risks. It also ensures a high margin, robust cash flow generation and limited headwinds from regulation and political interference in terms of environmental considerations. The exposure to hydropower production also guarantees the consistent GRE status.

Political and regulatory risks Lyse is exposed to political and regulatory risk as it provides profitable, critical public services such as electricity and telecommunications infrastructure. This has been exemplified by an unpredictable taxation framework for Norway's power producers in recent years, and by ongoing discussion about a potential regulation of fibre-optic networks. However, we still assess the overall framework conditions for utilities and telecommunications operators in Norway to be adequately stable.

Very strong ESG ratingWe acknowledge Lyse's well-integrated ESG framework and ambitions, including public
sustainability reports and a green financing framework. It has also obtained an ESG
Second Party Opinion from S&P Global Ratings, attaining a 'Dark Green Rating' (highest
possible outcome). The company has issued numerous green bonds with proceeds used
exclusively for low-carbon solutions and climate change adaption.

No governance issues The company applies governance principles as recommended by Norwegian market standards, and we did not observe any negative credit-relevant factors pertaining to corporate governance.

³ These evaluations are not mutually exclusive or exhaustive as ESG factors may overlap and evolve over time. We only consider ESG factors that are credit-relevant, i.e. those that have a discernible, material impact on the rated entity's cash flow and, by extension, its credit quality.



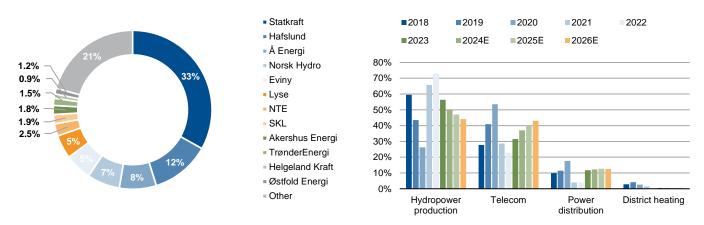
Blended industry risk profile: BBB

Business risk profile: BBB+

Given that Lyse is active in several utility segments and telecommunications which exposes it to different operating environments, our industry assessment reflects a blended industry risk profile of BBB. The assessment is based on normalised contributions to Scope-adjusted EBITDA of around 50% from non-regulated power production (industry risk: BB), 40% from telecommunications (industry risk: A), and 10% from monopolistic power distribution (industry risk: AA). This assessment is constrained by Lyse's still major exposure to volatile power prices due to its large hydropower production, even though expected increasing contribution from mobile services may sustain a stronger industry risk profile in the coming years.

Figure 1: Normalised market shares in Norwegian hydropower generation

Figure 2: Normalised contribution to Scope-adjusted EBITDA by business area



Sources: The Norwegian Regulatory Authority (NVE-RME), Scope

10-year mean production of 9.7 TWh and installed capacity of 2,494 MW

Large water reservoir capacity

Exposure to power distribution

Lyse is among Norway's largest hydropower producers (positive ESG factor) through its 74.4% ownership in Lyse Kraft DA. At year-end 2023, the company's consolidated hydropower portfolio had a 10-year mean production of 9.7 TWh and installed capacity of 2,494 MW. Excluding minorities, Lyse's annual normal production is around 7.1 TWh.

The company's power plants are favourably placed in the Nordic and European merit order system due to the comparatively low marginal production cost of hydropower, something that is regarded as more important than size for the market position of a power utility. Lyse's power plants enjoys large water reservoirs with an aggregated storage capacity of 6.8 TWh, equivalent to two-thirds of the 10-year mean production. This is viewed as a credit positive aspect since it provides flexibility to produce when supply is constrained, such as during peak-load hours or periods with low output from intermittent capacities. Going forward, this ability should support Lyse's future achievable power prices through increased value of active water management considering the growing share of wind and solar in the energy mix.

Lyse's market position is enhanced by exposure to power distribution in southwestern Norway, given the monopolistic position in this service. Lyse's grid subsidiary, Lnett, serves more than 160,000 residential and commercial customers. The regulatory system is well established and reliable in Norway. Tariffs are reviewed regularly and based on a two-year backward-oriented approach, ensuring a timely bass-through of costs, while operators are also granted a defined return on invested capital.

Sources: Lyse, Scope (estimates)



Largest supplier of fibre-optic broadband in Norway

In telecommunications, Lyse is the largest supplier of fibre-optic broadband and fiberrelated television services in Norway. Under the Altibox brand (including partnerships), the company covered around 45% of the market and had around 868,000 customers in 2023. We note that when including all access technologies, market shares are lower, with 31% in fixed broadband and 26% in television services. After entering mobile services by acquiring Ice in 2022, the company is currently utilising its existing fibre-optic network to cost-efficiently expand the mobile network of Ice to achieve full 5G coverage across Norway. This is an important step for becoming a viable competitor to Telenor and Telia within the mobile segment. We still consider the market position and growth outlook in telecommunications as strengthened after the acquisition of Ice, as the company can benefit from synergies between its fibre and mobile infrastructure and already large customer base.

Figure 3: Development in Telecommunications: EBITDA (NOK m) and number of customers ('000) in Altibox and Ice

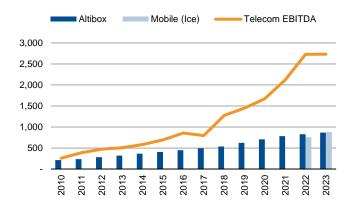
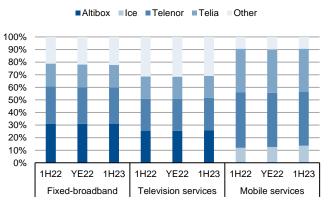


Figure 4: Telecommunications market shares in Norway (based on revenues)



Sources: Lyse, Scope

Sources: Norwegian Communication Authority (Nkom), Scope

Good diversification

Overall diversification is good, supported by Lyse's diversified business model across integrated utility and telecommunications segments, which helps to stabilise financial results. The company generates all cash flow in Norway and geographical diversification is therefore a moderate constraint in comparison with larger international peers. In terms of pricing risk, the sole exposure of power plants to the NO2 bidding zone is not a huge concern given high interconnection to neighboring domestic bidding zones as well as to Europe. Following the establishment of Lyse Kraft DA in late 2020 together with Hydro, Lyse increased the number of power plants from 24 to 33 and thereby reduced potential vulnerabilities to specific power plants.

Above average profitability and efficiency in European context Lyse is assessed to have above average profitability and efficiency when compared to our peer group of integrated European utilities. The company has historically shown rather stable EBITDA margin patterns despite exposure to volatile power prices, supported by the low and somewhat volume-dependent operating cost in hydropower production. Ice is currently having a negative impact on the divisional EBITDA margin in telecommunications (declined to 31% in 2023 from around 35%-40% historically) but is expected to support improved profitability in the longer-term, although this will require materialisation of projected growth. Going forward, we expect the group EBITDA margin to be around 45% and Scope-adjusted ROCE of around 15%.

Figure 5: Estimated EBITDA margin by business area

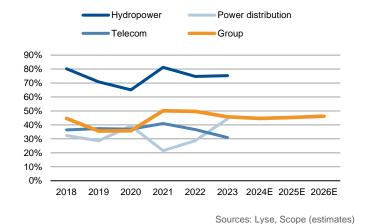
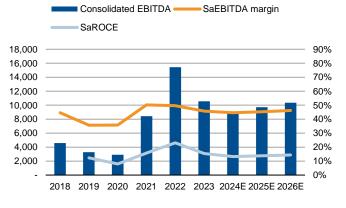


Figure 6: Scope-adjusted EBITDA (NOK m, LHS) versus EBITDA margin (RHS) and ROCE (RHS)



Sources: Lyse, Scope (estimates)

Financial risk profile: BBB+

Good financial risk profile

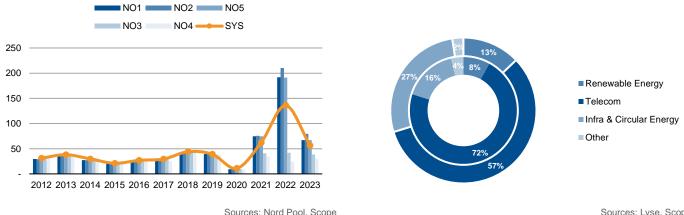
Lyse's financial risk profile reflects continued good credit metrics despite ongoing high capex and more normalised power price levels. We note a faster-than-expected normalisation of power prices following decreasing European gas prices and more normalised hydrology in southern Norway. This has led to more pressure on near-term credit metrics than in the previous update, while our expectations for 2025 and onwards are largely unchanged.

Telecommunications still the main contributor to capex

We continue to expect telecommunications to be the main contributor to higher-thanhistorical capex in 2024-2026 (figure 8). In addition, we expect increasing capex in power distribution into more grid capacity. In hydropower, the announced expansion of the Røldal-Suldal system is still some years ahead, with construction estimated to begin in 2027 at the earliest.

Figure 7: Norwegian power prices by bidding zone versus Nordic system price (SYS), EUR/MWh

Figure 8: Investment by reporting segment in 2021-2023 (inner circle) and 2024E-2026E (outer circle)



Sources: Lyse, Scope

Adjustments

When calculating credit metrics, we have adjusted Scope-adjusted EBITDA for the net cash effect from power generation outflow to non-controlling interests (mainly comprising Hydro's 25.6% ownership in Lyse Kraft DA). Consequently, this adjustment also goes into Scope-adjusted FFO and FOCF.

Lyse AS

Kingdom of Norway, Utilities

Main assumptions

SCOPE

The main assumptions in our updated base case includes:

- Power prices of around NOK 600/MWh in the NO2 bidding zone in 2024-2026
- Hydropower production in Lyse Kraft DA of 9.0-9.5 TWh per year
- Stable EBITDA contribution from power distribution and moderately increasing EBITDA in telecommunications
- Capex of NOK 4.9bn per year, including a high amount for growth in mobile services
- No major divestments or business acquisitions
- Dividend payouts to municipal owners of NOK 750m-800m per year

Leverage (Scope-adjusted debt/EBITDA) has ranged in recent years between a maximum level of 4.8x (2020) and minimum of 1.2x (2022). This demonstrates the volatility feeding through to Lyse's financial risk profile from its power price exposure, something that is viewed as a credit constraint. Leverage increased to 2.3x in 2023, driven by lower power prices, still high capex, and payment of high incurred hydropower taxes from 2022. In 2024-2026, we expect leverage to stay in the 2.5x-3.0x range, driven by our assumption of a further normalisation of power prices beyond that witnessed in 2023.



below 3x

Leverage expected to remain

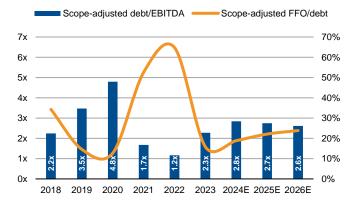
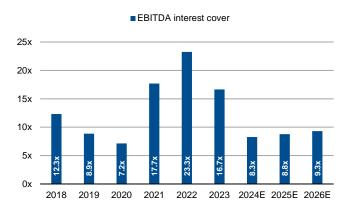


Figure 10: Interest cover



Sources: Lyse, Scope (estimates)

Good cash flow generation

The company continues to show good cash flow generation through the cycle. This is exemplified by an estimated average Scope-adjusted free operating cash flow of NOK 0.8bn over 2021-2026. With time, we see good chances of improved cash flow generation as ongoing growth projects are completed and start to generate income, most notably in mobile services. This could likely also come in parallel with less elevated capex levels.

Strong interest coverInterest cover is forecasted to remain at a strong level of 8x-10x in 2024-2026. While
there is some negative impact from higher interest rates and an increasing level of
Scope-adjusted debt, this is partially offset by the company's exposure to fixed-rate debt,
which was around 50% as of YE 2023.

Adequate liquidity Liquidity is adequate. Lyse's liquidity ratios have been above 200% historically. For 2024-2025, we expect financial debt maturities and negative free operating cash flow to be more than 200% covered by available cash and cash equivalents of around NOK 5.8bn and committed undrawn credit lines of around NOK 3.3bn as of YE 2023. The company's liquidity profile is also supported by very good access to bank and capital markets financing.

Sources: Lyse, Scope (estimates)

Figure 11: Cash flow profile, NOK m

SCOPE

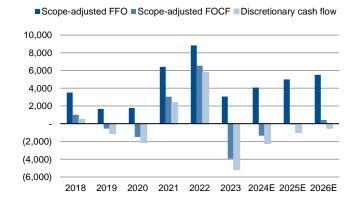
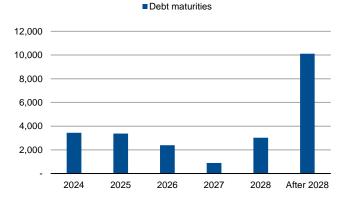


Figure 12: Debt maturity profile, NOK m



>200%

Sources: Lyse, Scope

>200%

Sources: Lyse, Scope (estimates)

Coverage

Balance in NOK m	2023	2024E	2025E
Unrestricted cash (t-1)	8,032	5,837	5,175
Open committed credit lines (t-1)	3,320	3,250	3,250
Free operating cash flow (t)	(3,943)	(1,336)	(88)
Short-term debt (t-1)	1,973	3,439	3,374

>200%

Supplementary rating drivers: +1 notch

One-notch uplift for parent The issuer rating incorporates a one-notch uplift to the standalone credit assessment of support BBB+ considering the company's status as a government-related entity. The GRE status is based on full public ownership by 14 municipalities in southwestern Norway and the essential public service provided by the company, most critically power distribution and electricity generated by hydropower assets. We have applied the bottom-up approach using the framework outlined in our Government Related Entities Rating Methodology. The one-notch uplift reflects the public sponsor's 'high' capacity and 'medium' willingness to provide support. The rating uplift is in line with other Scope-rated Norwegian utilities with majority or full public ownership but no explicit guarantees on their debt or financial support. **Credit-neutral financial policy** No adjustment has been made for financial policy. The company aims to pay stable,

progressive dividends that corresponds to a level of 60% of earnings over time. We regard positively management's target of sustaining a credit rating of minimum BBB+ and therefore its implicit awareness of credit metrics needed for that rating level. In addition, management's liquidity strategy states that cash should cover operational and investment activities as well as debt maturities and dividends in the next six months, positively impacting our view of Lyse's liquidity profile.

Long-term and short-term debt ratings

Senior unsecured debt is rated A-, the same level as the issuer rating.

The short-term debt rating of S-1 is based on the underlying A-/Stable issuer rating and is backed by robust short-term debt coverage and very good access to bank and capital markets financing.

Senior unsecured debt rating: A-Short-term debt rating: S-1



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