MOODY'S
INVESTORS SERVICE

CREDIT OPINION
12 July 2023

Update

Send Your Feedback

RATINGS

Electricity Supply Board (ESB)

Domicile	Dublin, Ireland
Long Term Rating	A3
Type	LT Issuer Rating
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Phil Cope +44.20.7772.5229
VP-Senior Analyst
phil.cope@moodys.com

Edoardo Gasparoni +44.20.3314.2277
Associate Analyst
edoardo.gasparoni@moodys.com

Paul Marty +33.1.5330.3371
Senior Vice President/Manager
paul.marty@moodys.com

Electricity Supply Board (ESB)

Update to credit analysis

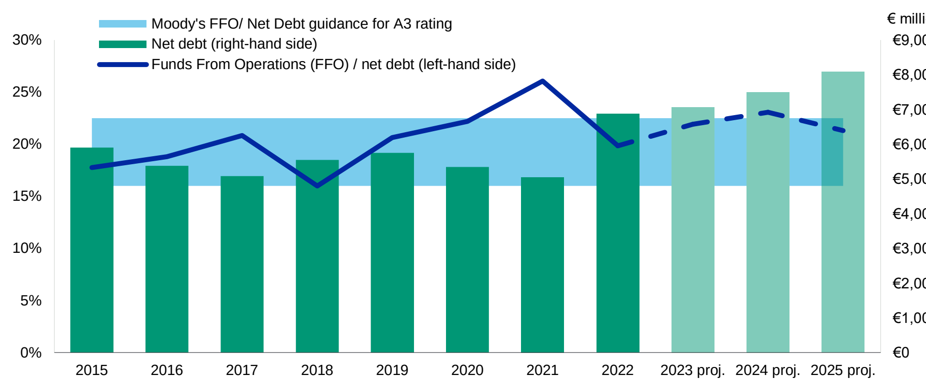
Summary

Electricity Supply Board (ESB)'s (A3/P-2 stable) credit quality is supported by: (1) the majority of the group's earnings, typically c. 70% of EBITDA, derived from its position as the monopoly owner and operator of the electricity transmission and electricity distribution networks in both the Republic of Ireland (Aa3 stable) and Northern Ireland; (2) the well-established and transparent regulatory regimes governing these operations, with revenue visibility through 2025 in both jurisdictions; and (3) capacity revenue and contracted renewables which give good visibility on a significant portion of the group's generation earnings.

ESB's credit quality is, however, constrained by (1) the high proportion of earnings, relative to most European energy network operators, from unregulated generation and supply businesses, (2) the group's substantial capital investment programme, with gross capex expected to average around €2 billion per annum over 2023-25; and (3) increasingly material additional debt in the group's joint ventures.

ESB's A3 ratings incorporate one notch of uplift from its standalone credit quality, or Baseline Credit Assessment (BCA), of baa1 as a result of potential support from the Government of Ireland (Aa3 stable), which owns 96.9% of ESB, should this become necessary. We continue to view the probability of extraordinary support from the government as moderate.

Exhibit 1
We expect ESB to maintain significant headroom to minimum ratio guidance as it executes its large investment programme



Moody's projections (proj.) are Moody's opinion and do not represent the views of the issuer.
Sources: Moody's Financial Metrics, Moody's Investors Service forecasts

Credit strengths

» Majority of earnings, typically around 70%, from monopoly electricity network businesses operating under well-established and transparent regulatory frameworks

» Consistently strong financial metrics underpinned by prudent financial policy

» Capacity revenues and renewable support mechanisms that give good visibility on a significant portion of the group's generation earnings

» Elevated wholesale power prices in Great Britain and Ireland provide significant near-term cash flow to support investment plans

Credit challenges

» High proportion of earnings, relative to most European energy network operators, from unregulated generation and supply businesses

» Large and growing capital investment programme

» Increasingly material additional debt in the group's joint ventures

» Significant losses, to-date, from retail energy supply in Great Britain

Rating outlook

The stable outlook reflects our expectation that ESB will be comfortably positioned in the rating category with funds from operations (FFO)/net debt in the low 20s in percentage terms.

Factors that could lead to an upgrade

» Upward rating pressure would arise if ESB was expected to maintain FFO interest cover and FFO/net debt maintained above 4.5x and above the low 20s in percentage terms, respectively, on a sustained basis, with no material increase in business risk.

» Upward rating pressure could also arise if the rating of the Republic of Ireland was upgraded.

Factors that could lead to a downgrade

» Downward rating pressure, whilst not anticipated, would develop if ESB appeared unlikely to maintain FFO interest cover of at least 3.5x and FFO/net debt in the mid-to-high teens (in percentage terms).

» Downward rating pressure would also arise if there was a deterioration in the group's business risk profile, either as a result of growth in the group's non-regulated businesses or substantial increase in its minority shareholdings, without an offsetting improvement in its financial profile.

» A limited downgrade of the rating of the Republic of Ireland would not lead to a downgrade of ESB's rating.

Key indicators

Electricity Supply Board (ESB)

	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	2023-proj.	2024-proj.
FFO Interest Coverage	5.2x	6.7x	8.2x	9.6x	9.2x	7.9x	8.1x
Net Debt / Fixed Assets	51.1%	51.4%	48.4%	44.1%	58.7%	55.2%	54.2%
FFO / Net Debt	17.5%	19.7%	22.2%	26.1%	19.8%	20.8%	21.8%
RCF / Net Debt	16.9%	18.9%	21.3%	24.5%	18.0%	14.9%	19.7%

All ratios are based on Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Moody's Projections (proj.) are Moody's opinion and do not represent the views of the issuer. For definitions of Moody's most common ratio terms please see the accompanying User's Guide.
FFO and RCF exclude customer contributions in respect of new connections.
Sources: Moody's Financial Metrics, Moody's Investors Service estimates

Profile

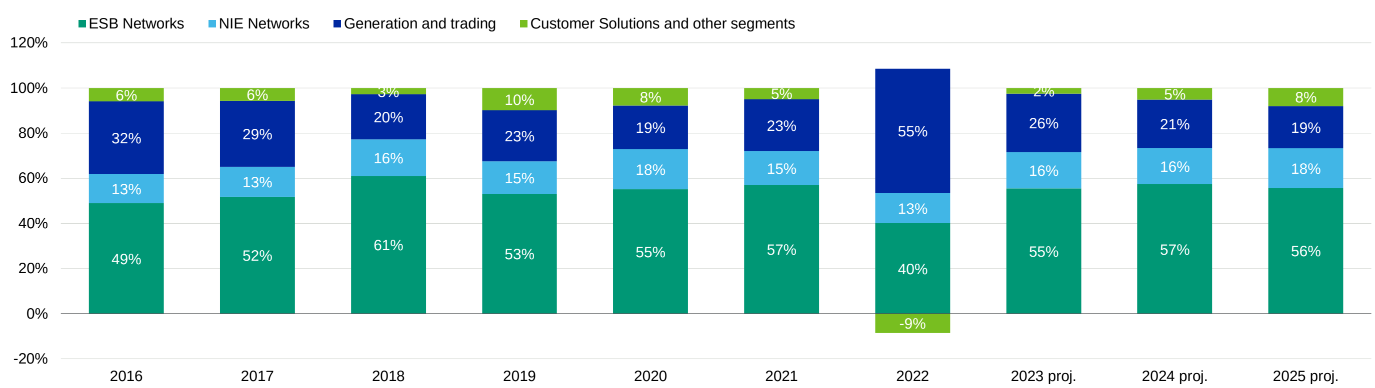
ESB is a vertically integrated electric utility in the Republic of Ireland (RoI). It holds leading market positions in power generation and electricity supply and is the monopoly owner of electricity distribution and transmission networks across RoI and Northern Ireland (NI).

Regulated businesses contribute most of the group's earnings (typically around 70% of EBITDA). Across RoI and NI, ESB's network assets (which include over 178,000 kilometres of power lines in RoI and 49,300 kilometres in NI) had a combined regulatory asset base (RAB) of approximately €12 billion as at the end of December 2022. In addition, the group had a power generation market share of c. 30%, by volume, across the all-island Irish Single Electricity Market (I-SEM) in 2022 and served 1.5 million electricity and gas customer accounts across Ireland, some 41% of the total. At December 2022, the group had installed capacity of owned generation, thermal and renewables assets, totalling 5.4 gigawatts (GW), of which 4 GW in the island of Ireland and 1.4 GW in Great Britan.

ESB is 96.9% owned by the Irish Government, through the Minister for Public Expenditure and Reform and the Minister for Communications, Climate Action and Environment. The remaining stake is held by an employee share ownership trust.

Exhibit 3

Regulated networks typically account for around 70% of ESB's EBITDA



EBITDA breakdown before exceptional items and impairments.
Source: Company reports, Moody's Investors Service

Detailed credit considerations

Around 70% of earnings from monopoly networks businesses operating under consistent and transparent regulatory frameworks in RoI and NI; good cash flow visibility through 2025

Over the last five years (2018-22), the group's price-regulated transmission and distribution businesses in the island of Ireland have accounted for around 68% of both the ESB group's assets and EBITDA (before exceptional items). These network businesses, ESB Networks in RoI and NIE Networks in NI, are governed by transparent, stable and predictable regulatory regimes and have good cash flow visibility through 2025 under the regulatory settlement for the current price controls. ESB Networks comprises around 80% of the group's networks RAB.

Exhibit 4

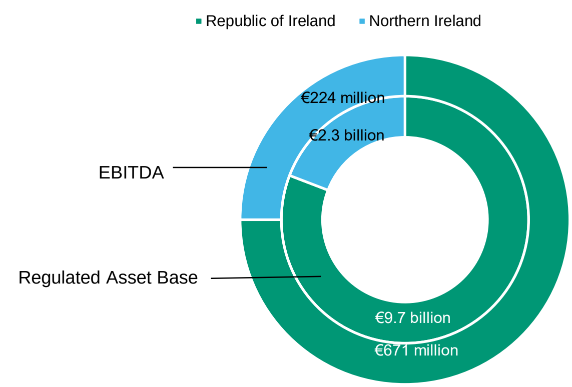
Price control summary

Republic of Ireland	
Regulated Business	ESB Networks
Regulator/Price Control	Commision for Regulation of Utilities (CRU) / PR5
Price control term	Jan 2021 - Dec 2025
Allowed return	3.80% pre-tax real
Regulated Asset Base	€9.7 billion (Dec-2022): €3.0bn tx; €6.7bn dx
Northern Ireland	
Regulated Business	NIE Networks
Regulator/Price Control	Utility Regulator (UR) / RP6
Price control term	Oct 2017 - Mar 2025[1]
Allowed return	3.27%[2] (vanilla real, RPI-stripped)
Regulated Asset Base	£2.0 billion / €2.3 billion (Dec-2022)

(1) The price control was originally scheduled to end 31 March 2024 but was extended by one year by the regulator in March 2023. (2) Reflecting the true-up for out-turn funding costs under the regulatory cost of debt mechanism (3.18% in final determination).
Source: ESB, CRU, UR

Exhibit 5

Relative size of networks, 2022



Source: ESB

Republic of Ireland

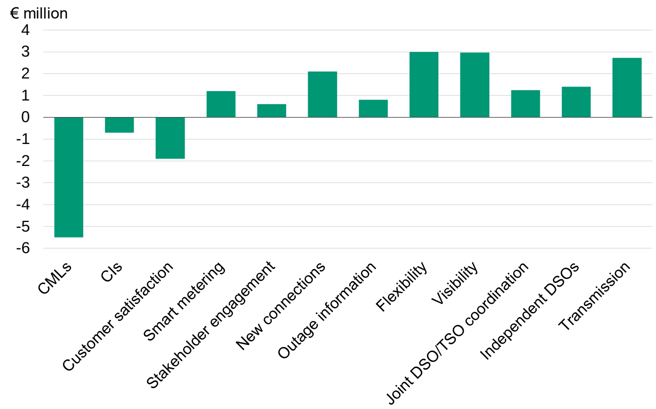
ESB's networks in the Republic of Ireland, benefit from a very transparent, stable and predictable regulatory regime based on clearly defined risk and reward principles. It is overseen by an experienced regulator, the Commission for Regulation of Utilities (CRU), which has a long track record of consistent decision making. The current legal regime was established over 20 years ago (we are midway through the fifth five year regulatory period). The CRU has consulted widely with a variety of stakeholders whenever changes to the regulatory framework have been made. ESB's networks benefit from good visibility of revenues and cash flows until December 2025 under the CRU's regulatory determination for the current price control for electricity networks (PR5), which began on 1 January 2021 and runs until 31 December 2025. The PR5 price review confirmed our view of the regulation of Irish energy networks as among the most transparent regimes globally (see ESB: Supportive PR5 determination confirms Irish regulation among world's most stable and predictable, 17 May 2021).

The CRU has typically set a higher level of allowed returns for ESB Networks than its closest regulatory peers (Ofgem in Great Britain and the Utility Regulator in Northern Ireland). The supportive approach to estimating ESB's cost of capital is reflected in the regulator implicitly 'aiming up' by setting an allowed return at the 67th percentile of the CRU consultants' (CEPA's) recommended range, which itself included an uplift of between 0% and 0.4% to reflect persistently lower inflation than in the rest of the EU. We estimate the use of the 67th percentile, rather than the midpoint, adds €25-30 million to ESB's EBIT in 2023 (or c. 0.4% to the group's FFO/net debt).

Baseline regulatory cost allowances in PR5 for ESB's networks total €5.85 billion (in 2019 prices), with the majority (76%) of this pertaining to the distribution network. The capex component, €3.89 billion, was over 67% higher than in the prior regulatory period. This reflects that the CRU took a long-term perspective on investment requirements, explicitly considering Ireland's Climate Action Plan 2019. Regulatory allowances also include funding for the roll-out of smart meters which will be completed by 2024 - in 2022 ESB Networks installed 480,000 customers taking the total number of installed meters to 1.1 million. Delivery of this large capex programme will drive substantial RAB growth over the period.

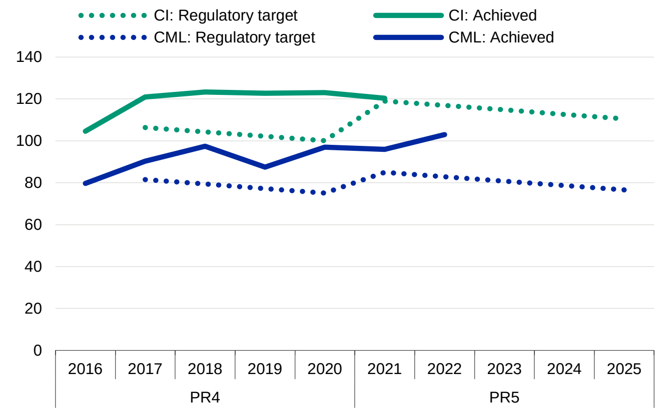
ESB has earnt modest incentive income on output delivery incentives carrying financial rewards and penalties (ODI-F) in the first two years of PR5. This reflects that whilst ESB Networks has performed strongly on most ODI-Fs it has consistently underperformed against regulatory targets for network reliability, as measured by number of customer interruptions (CIs) and customer minutes lost (CMLs), which together make up 45% of all available incentive income. We understand ESB Networks has set up specific workstreams designed to improve network reliability over the remainder of the price control period.

Exhibit 6
ESB earnt €8 million of incentive income in FY2021
Breakdown of earnt rewards/penalties by ODI-F



Source: ESB annual performance reports

Exhibit 7
ESB has consistently underperformed against network reliability targets



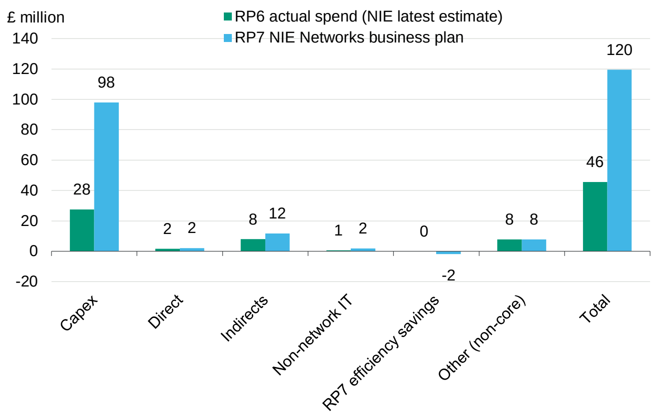
Source: ESB; CRU; Moody's Investors Service

Northern Ireland

The current regulatory period (RP6), which commenced in October 2017, will now run until March 2025 following the one-year extension to the control period announced by the Utility Regulator (UR) in March 2023.[1]. NIE Networks has delivered strong operational performance in RP6 to-date, particularly on opex and network reliability, which has boosted operational cash flows. The company has outperformed regulatory operating expenditure (opex) allowances by 8.3% over the period to regulatory year ending March 2022, of which it can retain 50% of the benefits. It has also earnt material incentive income from realising significant improvements in network reliability (as measured by customer minutes lost, planned and unplanned). Currently, this is the only ODI-F under the regulatory framework with a cap/collar of +/- 1.5% of annual distribution revenue. Significantly more demanding regulatory allowances and targets in these areas for the final year of RP6 reduce the scope for material operational outperformance.

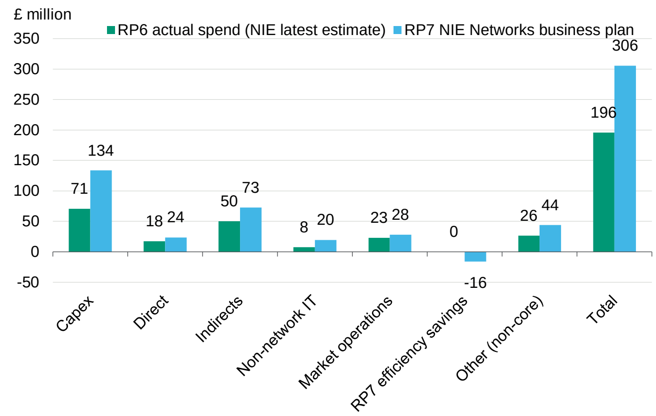
NIE Network's business plan, submitted in March 2023[2], proposes a 82% increase (on a comparable basis) in regulatory cost allowances[3]in the forthcoming regulatory period (RP7, which will now run from April 2025 to March 2031) to £2.55 billion in 2021/22 prices. This is driven by: (1) facilitating delivery of decarbonisation commitments outlined in the Climate Change Act (Northern Ireland) 2022: requested allowances to facilitate net zero are increasing from £319 million to £1,147 million; (2) maintaining network resilience and asset health; (3) a sizeable transmission investment programme identified by the system operator; and (4) inflationary pressures and supply chain challenges. We expect UR to publish its draft and final determination in November 2023 and October 2024 respectively.

Exhibit 8
NIE Networks requesting a 162% increase in transmission cost allowances for RP7
Average annual expenditure in £ million (2021/22)



Figures exclude real price effects (RPEs)
Source: NIE Networks

Exhibit 9
NIE Networks requesting a 56% increase in distribution cost allowances for RP7
Average annual expenditure in £ million (2021/22)



Figures exclude real price effects (RPEs)
Source: NIE Networks

Good regulatory protections against higher inflation and, in the medium term, higher interest rates

Over the last year, inflation in the UK and Ireland has been at or close to 40 year highs and we expect will remain elevated in the short term (see our Global Macro Outlook 2023-24 (May 2023 update)). A sustained period of higher inflation is generally credit positive for ESB's regulated networks because their revenue and RAB are adjusted annually by inflation (HICP for ESB Networks, and RPI for NIE Networks), whilst the vast majority of the group's debt (c. 90% at December 2022) is nominal rather than inflation-linked (ESB has some legacy RPI-linked swaps at NIE Networks). This supports degearing of the networks businesses, as measured by net debt to RAB.

The higher-than-expected inflation, compared to the ex-ante estimate used to set network charges for the forthcoming charging year, led to ESB's networks businesses under-recovering allowed revenues in both 2022 and 2023. However, this will be recovered in full in the October 2023 - September 2024 and October 2024 - September 2025 charging years, boosting EBITDA in FY2024 by over c. €0.1 billion we estimate. Networks EBITDA was also depressed in FY2022 by a give-back (through the 'correction term') of prior over-recoveries of regulated revenue.

The sharp rise in interest rates seen in the last 18 months will increase ESB's average interest costs, particularly given the sizeable financing requirements associated with delivering its capex programme. Whilst this will adversely impact performance for ESB Networks' against regulatory cost of debt allowance that is fixed for the duration of the regulatory period, the group has outperformed regulatory allowances to-date and in Northern Ireland the allowed return is updated to reflect to the prevailing market cost for new debt raised during the period (now 3.27% for RP6, 9 basis points higher than the published estimate at final determination). In addition, we expect that the higher interest rate environment rate will be reflected in the methodologies used by the CRU and UR to set allowed returns at the next regulatory period. For NIE Networks', the shift to the structurally lower measure of inflation, CPIH (from RPI) to set real returns will increase cash allowed returns. These changes will, in turn, boost operating cash flows.

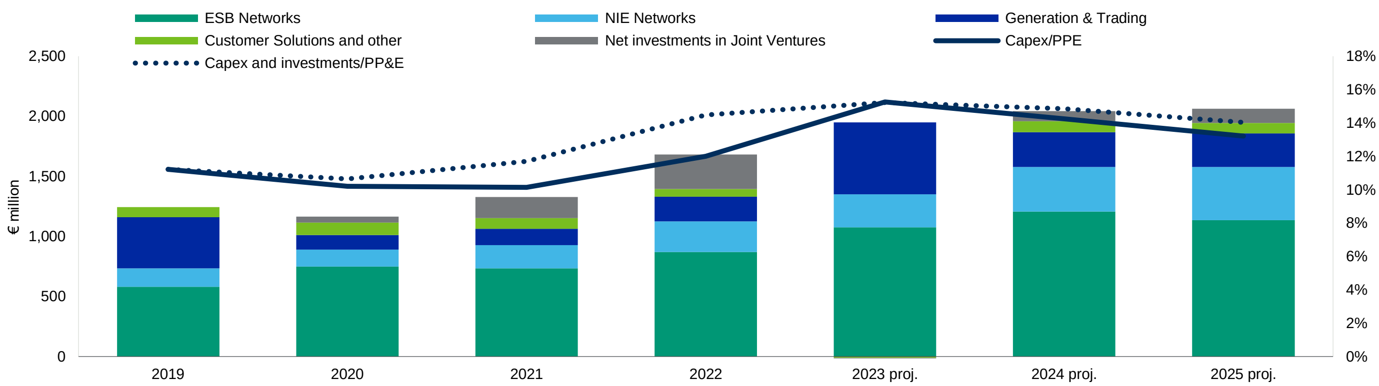
Large and growing capital investment programme

In 2022, ESB's reported capex was €1,395 million of which just over 80% (€1,125 million) was invested into the regulated businesses. We expect a material step-up in capex to around €2 billion per annum, on average, over 2023-25 driven by (1) further growth in networks capex (to around €1.6 billion on the same basis) as per the regulatory determinations for the current control periods, and (2) power generation projects, both renewables and fossil fuel.

This substantial capex programme, which equates to around 14% of net PP&E over 2023-25 when net investments in joint ventures for the generation portfolio are included, will increase ESB's leverage. However, we expect net debt/fixed assets will remain in the low 50s in percentage terms under the group's prudent financial policy (discussed below) if power prices remain at elevated level. We expect that ESB's combined networks RAB will reach €15 billion by 2025.

Post 2025, we believe there will be a further step-up in ESB's capex if it is to facilitate the delivery of the government's Net Zero targets as well as its own 2030 targets, in particular over 5 GW of installed owned renewable capacity (0.92 GW currently) and connecting 15 GW of low carbon technology to its networks in the Republic of Ireland, almost 3x December 2022 levels (5.4 GW). The extent of the step-up in leverage during this period depends on the regulatory settlements in the next regulatory period as well as the split of investment in generation assets between wholly-owned generation and that done through joint ventures. In recent years, ESB has funded a sizeable proportion of its renewable investments by joint ventures through both equity and shareholder loans.

Exhibit 10
Capex will increase, driven by further growth in network investment and build-out of generation portfolio

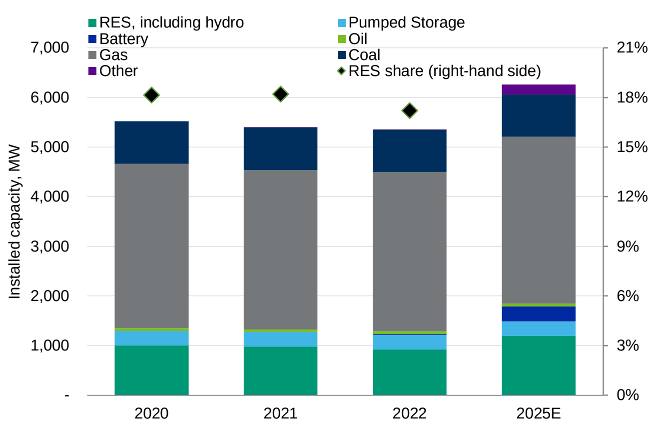


Gross capex figures for networks business presented. Customer contributions received by ESB's networks businesses were around one sixth of gross networks capex in 2021 and 2022 and we expect will remain at a similar level over the forecast period.
Source: ESB, Moody's Investors Service

An ambitious renewables development target

Under ESB's Net Zero by 2040 strategy, published in February 2022,[4] ESB intends to develop and connect renewables to decarbonise the electricity system by 2040. For its own generation portfolio, the company has set 2030 targets of over 5,000 megawatts (MW) of installed owned renewable generation (923 MW at December 2022) with 63% of its generation output coming from zero-carbon sources (15% in FY2022). ESB also plans to cease coal generation in 2025.

Exhibit 11
Evolution of ESB's installed capacity



Source: ESB; Moody's estimates for 2025

Exhibit 12
We expect ESB to add at least 0.7 GW of zero-carbon installed capacity by 2025
Installed capacity figures in MW

Technology	2022	By 2025	Comment
Battery	19	304	Remaining three projects under construction to be operational by the end of 2023
Solar	1	>150	Five wholly owned solar projects, totalling over 150 MW, together with one joint venture solar project secured 15 year contracts in the RESS-2 auction in Ireland during 2022. More projects could be bid in RESS-3
Wind	702	969 - 1050	Additions to include: onshore - Oweninny Phase 2 (83MW, ESB has 50% stake) and potentially Chirmorie (81MW); and offshore Neart na Gaoithe (450MW, ESB has 50% stake)

Construction of the battery at Inchicore was completed in 2022 but only Aghada 1 was operational at December 2022.
Source: ESB; Moody's estimates for 2025

We expect ESB to add at least c. 0.7 GW of zero-carbon capacity by 2025, spread across batteries, solar (from the Terra solar pipeline, its arrangement with Harmony Solar Ireland Limited and through ESB's joint ventures with Bord na Móna) and wind, both onshore and offshore (see exhibit above). There is considerable uncertainty about the location and technology of capacity additions post 2025 reflecting that it will depend on the results of future renewable auctions. For example, ESB's Oriel offshore wind project (375 MW), being jointly developed with Parkwind NV, was unsuccessful in the first Irish offshore wind auction earlier this year.

ESB has expanded its suite of partnerships with the signature in June 2023 of an agreement with Ørsted A/S (Ørsted, Baa1 stable), the world leader in offshore wind, to jointly develop an Irish offshore wind portfolio.[5] The partnership has the potential to deliver up to 5 GW of renewable energy and complementary renewable hydrogen projects, and the first of these offshore wind projects are expected to compete in the next Irish offshore wind auction, offshore Renewable Electricity Support Scheme (ORESS) 2.1. ESB also has partnerships with, amongst others, the state-owned Coillte (to develop up to 1 GW of onshore wind in Ireland on Coillte lands).

We expect ESB's fossil fuel portfolio to decline modestly over the period to 2025 with the cessation of output at coal-fired power plant Moneypoint (855 MW) and some gas plants, offset by the gas capacity additions in Dublin and for the temporary emergency generation (TEG) at North Wall (discussed below).

Material debt at joint ventures

In addition to shareholder loans from ESB and other partners, the company's joint ventures have raised significant project-level debt to finance the construction of new assets, particularly wind farms in the UK and Ireland. We understand that ESB's proportional share of third-party debt at its joint ventures was €1.35 billion (20% of ESB's Moody's adjusted net debt at December 2022), see exhibit below. Because these joint ventures are equity-accounted, the debt is not reflected in ESB's balance sheet or Moody's-adjusted credit metrics.

Exhibit 13

Major joint ventures and project-level debt

€ millions

Project name	Country	Technology	Capacity (MW)	Phase	ESB share	Other parties	Total debt	ESB share of debt
SIRO	ROI	Internet provider	n.a.	Operational	50%	Vodafone Ireland	€337	€168
Neart Na Gaoithe	Scotland	Offshore wind	450	Construction	50%	EDF Renewables UK	€1,873	€936
Galloper	England	Offshore wind	353	Operational	12.5%	Spring Infrastructure (12.5%) RWE (25%) Siemens (25%) Equitix (25%)	€936	€117
Oweninny Power	ROI	Onshore wind	89	Operational	50%	Bord na Móna	€124	€62
Oweninny Power 2	ROI	Onshore wind	83	Construction	50%	Bord na Móna	€100	€50
Raheenleagh	ROI	Onshore wind	35	Operational	50%	Greencoat Renewables	€37	€18
Emerald Bridge	ROI	Telecommunication	n.a.	Operational	50%	Zayo Group UK Ltd	€0	€0
Inch Cape	Scotland	Offshore wind	1,080	Pre-construction	50%	Red Rock Power Ltd	€0	€0
Five Estuaries	England	Offshore wind	353	Pre-construction	12.5%	Sumitomo (12.5%) RWE (25%) Siemens (25%) Macquarie (25%)	€0	€0
FuturEnergy	ROI	Onshore wind	1,000	Pre-construction	50%	Coillte Ltd	n.a.	n.a.
Superhomes Ireland	ROI	Home energy retrofit	n.a.	Operational	50%	Tipperary Energy Agency	n.a.	n.a.
Total share of JV debt								**€1,352**

Note: The project list is not comprehensive.
Source: ESB

As ESB expands its renewable capacity, unconsolidated project finance debt is likely to grow as new and larger projects come online. In particular, we expect third-party debt at these projects to increase as large projects such as Inch Cape enter the construction phase. The project debt is non-recourse to ESB. However, because the projects are important contributors to ESB's future cash flow, we take this debt into account in our assessment of ESB's credit quality. The company may choose to provide financial support to the wind joint ventures, should this become necessary, given the importance of renewables to the company's strategy.

The renewable joint ventures are backed by support mechanisms that give price certainty, although cash flow will be subject to output volatility. Over time, we expect ESB to receive material cash flow from the joint ventures, initially through repayment of shareholder loans and later by dividends. However, ESB has a subordinate claim on the project cash flow and assets behind project-level lenders, who also benefit from provisions that could limit ESB's ability to extract cash if performance is below expectations.

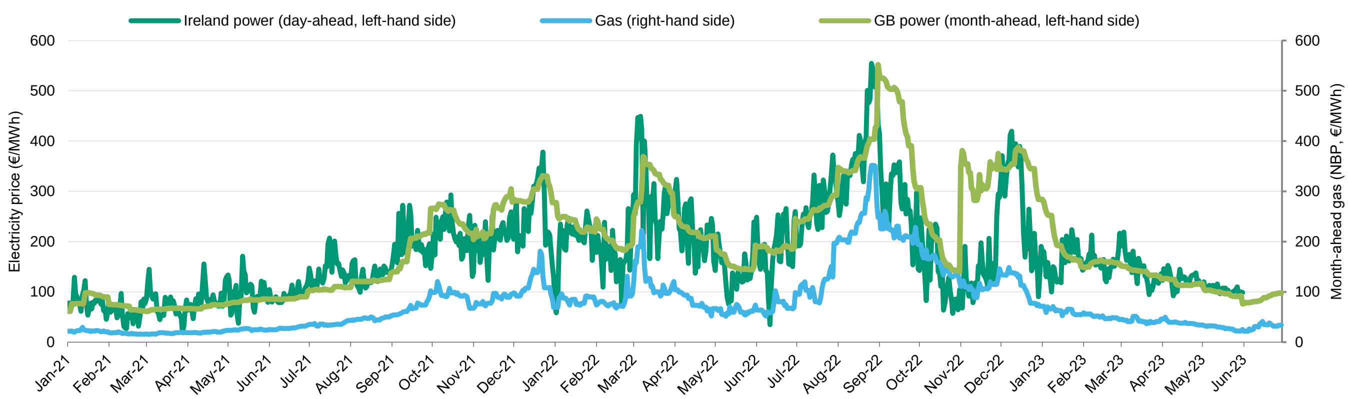
Higher risk in generation and supply businesses

The EBITDA contribution from ESB's generation and trading business has grown from just over 20% over 2018-20 to 55% in 2022. This reflects the large increase in energy margins as a result of higher wholesale energy prices in both Ireland and Great Britain, which led to operating profit increasing from €184 million in 2021 to €774 million in 2022. Day-ahead power prices in Ireland increased to an average of €226/MWh in 2022, c. six times 2020 levels (€38/MWh) and substantially higher than the €136/MWh in 2021. The large growth in energy margins materially reduced the share of contracted earnings for this segment (from capacity payment and subsidies for renewables output under the Renewables Obligation scheme in Great Britain and the REFIT scheme in the Republic of Ireland) and, in turn, the ESB group.

The extremely high wholesale energy prices led to market interventions by policy makers, including by the Irish and UK governments. In November 2022, the Irish government imposed a cap on all market revenues of non-gas electricity generators that ran from December 2022 to June 2023 with the cap level varying by technology (€120/MWh for wind and solar; at least €180/MWh for oil and coal; and €180/MWh for all other technologies). However, with the significant fall in power prices seen in 2023 to-date, we expect that the cap will have limited impact on ESB in 2023. Whilst the windfall tax (electricity generator levy [EGL]) in the UK applies a 45% marginal tax rate on revenues over £75/MWh, indexed from April 2023, over the period from January 2023 - March 2028, we expect the impact on ESB to be limited as it only affects a small part of ESB's legacy operational wind portfolio. Gas-fired plants are excluded and these make up the majority (1.23 GW) of ESB's installed capacity in Great Britain. Renewable energy sold output under contract for difference, which all ESB's projects under construction are covered by, are exempt from the EGL.

Exhibit 14

Power and gas prices are still at elevated levels, ableit well below the highs of August 2022



Source: FactSet, SEM and Moody's Investors Service

We expect power prices to remain elevated and volatile over the medium term given the tight capacity margins. The high levels of inflation seen in 2022 and 2023 have generally benefitted renewable operational projects, as subsidy levels are often inflation-linked. However, for projects not already contracted, higher interest rates and significant supply chain disruption and cost escalation have materially increased project costs which will squeeze profitability margins.

Security of supply concerns has boosted future revenue streams from capacity payments and presented additional opportunities for contracted revenues, a credit positive

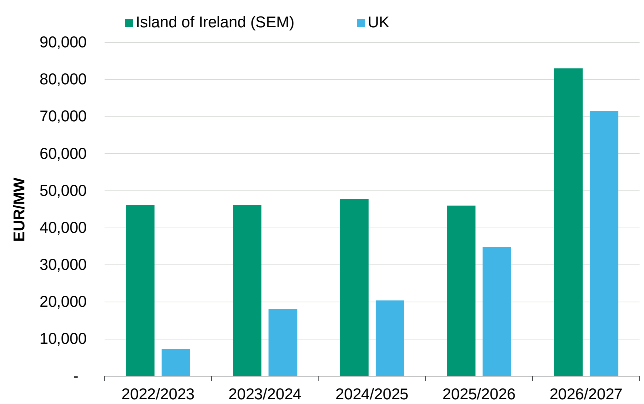
Increased concerns around security of supply following Russia's invasion of Ukraine have increased the demand for ancillary services by transmission system operators (TSOs) across Europe. This coupled with tightening reserve margins in Ireland and Great Britain have led to sharply higher clearing prices for reliability option contracts for future capacity years with gas plants the main beneficiary, of which ESB had over 3 GW of installed capacity at December 2022. It has also led to the CRU directing the Republic of Ireland's TSO, EirGrid, to procure 750 MW of Temporary Emergency Generation (TEG), over two tranches in 2021-22, to meet forecasted shortfalls in electricity supply in the upcoming winters.

In May 2023, EirGrid confirmed that the clearing price for capacity year 2026/27 (October 2026 - September 27) was 78% higher at €83,050/MW than the average of the three prior T-4 auctions which all cleared below €48,000/MW. Similarly, in Great Britain the 2026/27 T-4 capacity market auction cleared at over £63,000/MW, more than double the previous record. In the I-SEM T-4 2026/27 capacity auction, ESB secured a 10-year contract for its proposed new open cycle gas turbine at Poolbeg (256 MW).

In late 2022, EirGrid awarded a TEG contract for 200 MW of emergency generation capacity at North Wall and the new gas generation capacity is expected to be operational by October. The contract is for a minimum of three years with the option to extend for a further two years, which would take the total contract value to €508.7 million from €357 million. The commercial arrangements to pay for the installation and operation of TEG generation capacity ensure that ESB has minimal risk exposure with the company able to recoup its costs on a timely basis. ESB was also selected to host an additional 260 MW of TEG at its site in Shannonbridge, and development of this project has also commenced. We understand that ESB is engaging with EirGrid under the CRU Security of Electricity Supply initiative to explore options to extend the operational life of existing assets.

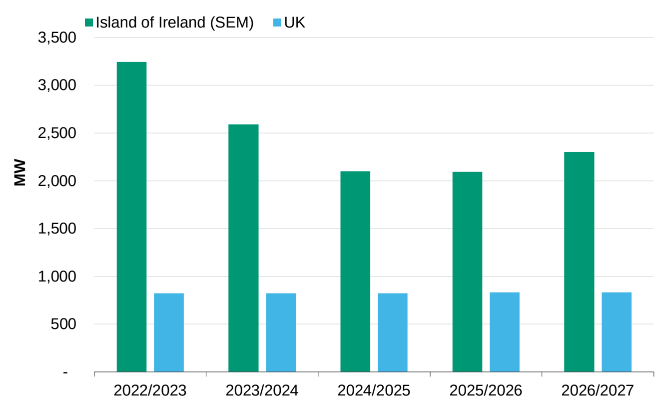
We believe that ESB is well positioned to benefit from high and volatile power prices with new capacity additions that will come online by Q1 2024, notably the completion of its battery portfolio and three separate gas generation projects (with a combined installed capacity of 190 MW) in the Dublin region. Finally, the completion of synchronous compensator at ESB's coal plant Moneypoint will improve, through the world's largest flywheel, grid stability by allowing connection of greater volumes of renewable energy onto the electricity system.

Exhibit 15
Latest capacity auctions cleared at increasingly higher prices
T-4 capacity auctions by year of delivery



[1] 2022/2023 was a T-3 auction in Great Britain
Source: SEMO, EMR Portal

Exhibit 16
Capacity awarded to ESB in T-4 capacity auctions



[1] 2022/2023 was a T-3 auction in UK
Source: SEMO, EMR Portal

Material losses from energy supply acquisition in Great Britain; although outlook is improving from a weak base
ESB's retail energy supply businesses in Ireland (Electric Ireland) and in Great Britain (So Energy) comprise the vast majority of the group's 'customer solutions' reporting segment. This segment has reported operating losses in both FY2021 and FY2022 (€19 million and €109 million respectively), primarily due to substantial losses at So Energy, which supplies c. 0.56 million electricity and gas accounts. Losses at So Energy reflect the effects of high wholesale energy prices and the regulated retail price cap that has operated since January 2019; most suppliers have recorded a loss since the price cap came into effect and a number of new entrants, primarily smaller, weakly capitalised suppliers with poor financial discipline, entered administration in 2021-22 (see Energy supplier failures will come at a cost, October 2021 for more information). So Energy had a greater drag on ESB's overall profitability in FY2022 than in FY2021 as market conditions remained challenging and this was the first full year of So Energy being incorporated into ESB's results since ESB acquired a 76% stake in the business in August 2021. From the date of acquisition to December 2021, So Energy reported a loss of €83.6 million.

We expect that the moderation of wholesale gas and electricity prices seen in 2023 to-date and proposed changes to the methodology used to set the retail price cap in Great Britain (see Latest proposals credit positive for suppliers but operating environment remains tough, June 2022, for more information) will lead to more stable results for this reporting segment over 2023 and 2024. We expect that most of the earnings will come from Electric Ireland, which serves over 1.5 million customers and has an electricity all-island market share of c. 41% and a c. 23% share of the residential gas market in the Republic of Ireland. Electric Ireland's financial performance in FY2022 was in line with FY2021 when the costs of the €50 winter credit for all of Electric Ireland's domestic electricity customers in the Republic of Ireland that the company announced in December 2022 are excluded (a €53 million provision was recorded).

Solid financial profile underpinned by prudent financial policy

ESB has exhibited consistently strong financial metrics in recent years, with FFO/net debt averaging 22.1% over the last three financial years (FY2020-22), and maintained net debt/fixed assets around 50%. ESB's solid financial profile has been supported by higher earnings from its generation and trading business in recent years and a continued prudent financial policy. ESB has had a long-standing dividend policy, agreed with its owner the Irish Government in 2013, of a payout ratio of 40% of normalised profit after tax. We expect the government to act in a flexible manner and to support ESB in its explicit aim to sustain a standalone minimum Baa1 credit rating (before uplift for government ownership, discussed below).

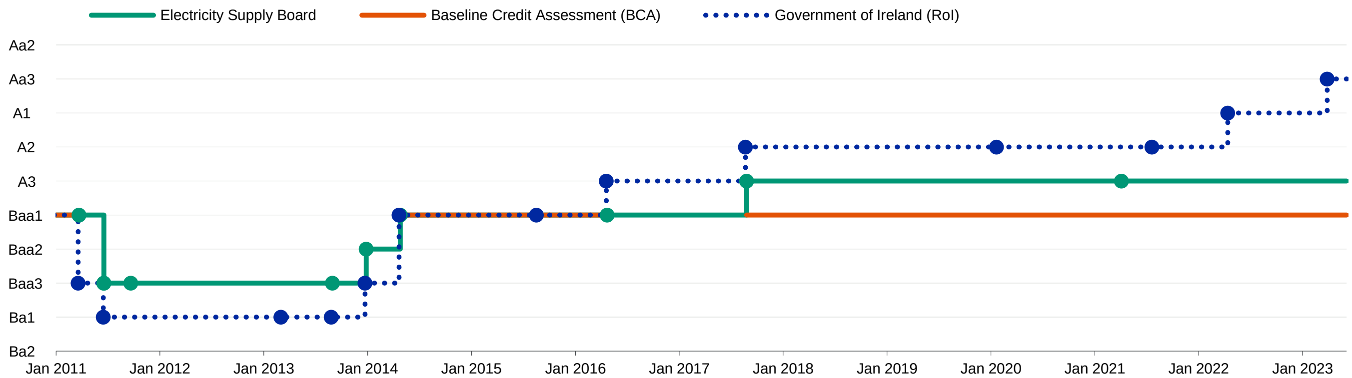
We expect that ESB's FFO/net debt will average around 22% over FY2023-24. Cash-flow based metrics will be supported by still elevated power and gas prices, despite the substantial falls in 2023 to-date, and favourable timing differences for the group's network business. In addition, the unwinding of collateral posted in FY2022 (the net outflow was €1.0 billion) will more than offset the increase in leverage from the one-off enhanced dividend declared for FY2022 (€327 million), which will be paid later this year. Over the medium term, we expect that ESB's FFO/net debt will decline modestly, towards 20%, due to the increase in leverage as it executes its large investment programme.

Credit benefit from government shareholding

ESB's A3 rating incorporates one notch of uplift from the company's baa1 Baseline Credit Assessment (BCA), a measure of standalone credit quality, under our methodology for Government-Related Issuers (GRIs), published in February 2020. This uplift takes into account the government's majority (96.9%) ownership of the company; the credit quality of the government which has improved in recent years (see exhibit below); and the likelihood of support, should it become necessary. The government maintains control over ESB through its holding of 96.9% of voting rights and is involved in the supervision of the company through its representatives on the company's board of directors - all appointments to the board are made by the government.

We continue to view the likelihood of support from the government as moderate. Delivery of ESB's Net Zero by 2040 Strategy will play a key role in facilitating government decarbonisation objectives, as set out in Ireland's Climate Action Plan 2023 published in December 2022, and we understand the government was engaged in producing this strategy. We believe the non-interventionist Irish government would hesitate to support state-owned companies, except in the most extreme of circumstances. In our view, the government would expect ESB to take mitigating measures.

Exhibit 17
ESB's rating incorporates one notch of uplift from its BCA
Moody's rating history for ESB and its supporter, the Government of Ireland



Dots indicate rating action dates, including changes of outlook and affirmations.
Source: Moody's Investors Service

ESG considerations

Electricity Supply Board (ESB)'s ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 18
ESG Credit Impact Score

For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.

Source: Moody's Investors Service

ESB's CIS-2 indicates that ESG considerations are not material to its credit rating. Its score reflects moderate environmental and low social and governance risks. The effect of ESG risks to the rating is mitigated by our expectation that its government shareholder would support the company if this were to become necessary.

Exhibit 19
ESG Issuer Profile Scores

Source: Moody's Investors Service

Environmental

ESB's moderately negative environmental risk (**E-3**) primarily reflects its exposure to physical climate risk. Whilst the island of Ireland has less extreme weather than many other countries, severe storms or flooding creates risks of physical damage to ESB's network assets, e.g. substations, and may reduce network reliability which carries a financial output delivery incentive under its regulatory frameworks. This exposure is mitigated by (1) weather proofing of the network; and (2) regulatory protections that reduce the adverse impact on operational cash flows of more extreme weather events.

ESB's carbon transition risk is low, because the company's strategy is aligned with Ireland's Climate Action Plan - the company has committed to delivering net zero by 2040 - and around 70% of ESB's EBITDA typically comes from regulated networks, which will provide resilient earnings under a variety of decarbonisation scenarios. In its generation business, renewables accounted for 17% of generation capacity in 2022. We expect most of ESB's non-networks capital expenditure to be focused on renewables, some of which should benefit from the Government's delayed Renewable Electricity Support Scheme, as it seeks to deliver a five-fold increase in installed renewable generation capacity to five gigawatts (GW) by 2030, from 0.92 GW at December 2022, to help meet its targets of 63% of its electricity production coming from zero-carbon sources by 2030.

Social

ESB's social risk is neutral/low (**S-2**). Although all regulated utilities face the risk that public concern over environmental, social or affordability issues could lead to adverse regulatory or political interventions, ESB benefits from an exceptionally stable and predictable regulatory framework.

Governance

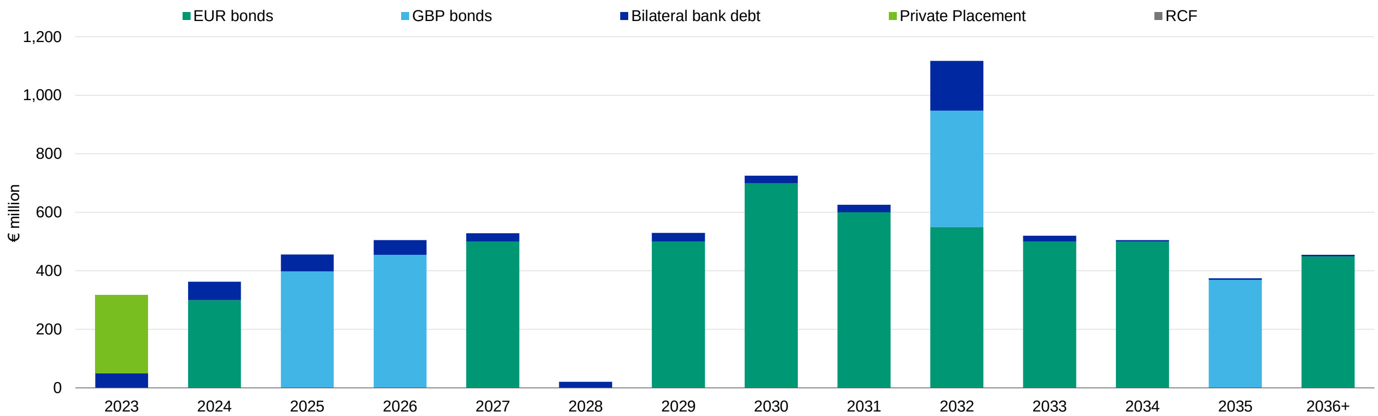
Governance risks are neutral/low (**G-2**). As a government-owned company, we assess that the independence of ESB's board is relatively weak. However, board appointments are made from a shortlist drawn up by Ireland's independent Public Appointments Service, and board members are require to act "at all times in good faith and in the best interests of ESB, while having regard to the interests of the shareholder(s), employees and other stakeholders". Government ownership is also associated with positive governance features such as transparent reporting and oversight.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity

We view ESB's liquidity as very good over the period to December 2024, reflecting the (1) stable and predictable cash flow generated by its regulated electricity networks businesses that allows it to fund the majority of its capex requirements; (2) sizeable unrestricted cash and cash equivalents, €236 million at December 2022, which have been boosted by proceeds from the €350 million bond issuance in January 2023 and the receipt of net exchange traded collateral inflows (following outflows of €0.75 billion in 2022); (3) access to a €1.44 billion revolving credit facility (RCF) not expiring until Febuary 2027 that was fully undrawn as of May 2023, we understand, and contains no financial covenants; and (4) well-spread debt maturity profile. Less than 10% of the group's debt at March 2023 matures before the end of 2024, see exhibit below, but we estimate that ESB will also need to make an accretion paydown on legacy RPI-linked swaps of around €0.25 billion in December 2023.

Exhibit 20
ESB has a well-spread debt maturity profile
As of March 2023



(1) Excludes debt at joint ventures (JVs). (2) EUR denominated bonds are issued by ESB's finance subsidiary, ESB Finance Designated Activity Company (ESB Finance, A3 stable). (3) GBP bonds are issued by the finance subsidiary of NIE networks business, NIE Finance. The 2035 GBP bond (£325m 1.875% July 2035) was issued by ESB Finance.
Source: Company

Rating methodology and scorecard factors

Our rating assessment of ESB is based on our methodology for Regulated Electric and Gas Networks, published in April 2022, and also takes into account the Government-Related Issuers methodology, published in February 2020.

The scorecard-indicated outcome is A2 based on both historical and projected financial metrics. The baa1 BCA reflects the additional risk compared with peers rated under the methodology posed by the material contribution to group earnings from unregulated businesses, such as power generation and electricity supply.

Exhibit 21
Rating factors
Electricity Supply Board (ESB)

Regulated Electric and Gas Networks Industry Grid [1][2]	Current FY 31/12/2022		Moody's 12-18 Month Forward View As of July 2023	
Factor 1 : Regulatory Environment and Asset Ownership Model (40%)	**Measure**	**Score**	**Measure**	**Score**
a) Stability and Predictability of Regulatory Regime	Aaa	Aaa	Aaa	Aaa
b) Asset Ownership Model	Aa	Aa	Aa	Aa
c) Cost and Investment Recovery (Ability and Timeliness)	A	A	A	A
d) Revenue Risk	Aa	Aa	Aa	Aa
Factor 2 : Scale and Complexity of Capital Program (10%)				
a) Scale and Complexity of Capital Program	Ba	Ba	Ba	Ba
Factor 3 : Financial Policy (10%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Factor 4 : Leverage and Coverage (40%)				
a) FFO Interest Coverage Ratio (3 Year Avg)	9.0x	Aaa	7.8x - 8.2x	Aaa
b) Net Debt / Fixed Assets (3 Year Avg)	50.5%	A	53% - 56%	A
c) FFO / Net Debt (3 Year Avg)	22.4%	A	20% - 22%	A
d) RCF / Net Debt (3 Year Avg)	20.9%	A	14% - 20%	A
Rating:				
Scorecard-Indicated Outcome from Grid Factors 1-4		A2		A2
Rating Lift		**0**	**0**	**0**
a) Scorecard-Indicated Outcome		A2		A2
b) Actual BCA Assigned				baa1
Government-Related Issuer	**Factor**			
a) Baseline Credit Assessment	baa1			
b) Government Local Currency Rating	Aa3 Stable			
c) Default Dependence	High			
d) Support	Moderate			
e) Final Rating Outcome	A3			

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations; [2] As of 31/12/2022; [3] This represents Moody's forward view, not the view of the issuer, and unless noted in the text, does not incorporate significant acquisitions and divestitures.
Source: Moody's Investors Service

Ratings

Exhibit 22

Category	Moody's Rating
ELECTRICITY SUPPLY BOARD (ESB)	
Outlook	Stable
Issuer Rating	A3
Senior Unsecured MTN -Dom Curr	(P)A3
ST Issuer Rating -Dom Curr	P-2
ESB FINANCE DESIGNATED ACTIVITY COMPANY	
Outlook	Stable
Bkd Senior Unsecured	A3

Source: Moody's Investors Service

Appendix

Exhibit 23

Peer comparison

Electricity Supply Board (ESB)

	Electricity Supply Board (ESB) (P)A3 Stable			Gas Networks Ireland A2 Stable			National Grid Electricity Transmission plc Baa1 Stable		
(in EUR million)	FYE Dec-20	FYE Dec-21	FYE Dec-22	FYE Dec-19	FYE Dec-20	FYE Dec-21	FYE Mar-20	FYE Mar-21	FYE Mar-22
Revenue	3,653	5,319	7,507	470	447	476	1,988	1,975	2,036
EBITDA	1,260	1,365	1,759	291	274	245	1,503	1,603	1,599
Total Debt	5,592	5,584	7,110	1,267	1,177	1,023	7,897	8,926	9,229
Net Debt	5,343	5,047	6,874	1,165	1,080	964	7,897	8,926	9,216
(FFO + Interest Expense) / Interest Expense	8.2x	9.6x	9.2x	13.5x	13.0x	17.2x	6.4x	7.3x	4.7x
Net Debt / Fixed Assets	48.4%	44.1%	58.7%	45.7%	43.1%	39.5%	59.1%	64.4%	63.7%
FFO / Net Debt	22.2%	26.1%	19.8%	20.8%	21.5%	22.6%	15.5%	13.5%	13.8%
RCF / Net Debt	21.3%	24.5%	18.0%	16.1%	17.1%	21.0%	4.5%	8.7%	9.8%

All figures are calculated using Moody's estimates and standard adjustments.
Source: Moody's Financial Metrics™

Exhibit 24

Moody's-adjusted debt breakdown

Electricity Supply Board (ESB)

(in EUR million)	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22
As Reported Total Debt	**5,144.0**	**5,364.4**	**5,368.4**	**5,482.7**	**7,021.6**
Pensions	506.0	508.6	223.2	101.4	88.7
Leases	123.4				
Moody's Adjusted Total Debt	**5,773.4**	**5,873.0**	**5,591.6**	**5,584.1**	**7,110.3**
Cash & Cash Equivalents	-229.1	-125.1	-248.7	-537.0	-236.0
Moody's Adjusted Net Debt	**5,544.3**	**5,747.9**	**5,342.9**	**5,047.1**	**6,874.3**

Source: Moody's Financial Metrics™

Exhibit 25
Moody's-adjusted funds from operations breakdown
Electricity Supply Board (ESB)

(in EUR million)	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21	FYE Dec-22
As Reported Funds from Operations (FFO)	**904.7**	**1276.7**	**931.6**	**1406.6**	**1418.7**
Pensions	24.0	22.5	22.4	22.4	23.6
Leases	16.0				
Capitalized Interest	-25.4	-27.5	-24.2	-23.9	-28.6
Alignment FFO	47.5	-8.7	44.6	57.4	84.6
Cash Flow Presentation	0.0	0.0	14.5	9.4	46.1
Non-Standard Adjustments	2.8	-131.4	199.4	-156.2	-181.0
Moody's Adjusted Funds from Operations (FFO)	**969.6**	**1131.6**	**1188.3**	**1315.7**	**1363.4**

Non-standard adjustments pertain to the removal of 'networks supply contributions received'
Source: Moody's Financial Metrics™

Exhibit 26
Selected historical Moody's-adjusted financial data
Electricity Supply Board (ESB)

(in EUR million)	FYE Dec-19	FYE Dec-20	FYE Dec-21	FYE Dec-22
INCOME STATEMENT				
Revenue	3,641.0	3,653.1	5,319.2	7,506.6
EBITDA	1,344.7	1,260.0	1,365.3	1,759.2
EBITDA margin %	36.9%	34.5%	25.7%	23.4%
EBIT	538.5	453.3	424.4	841.8
EBIT margin %	14.8%	12.4%	8.0%	11.2%
Interest Expense	200.1	164.4	152.8	166.6
Net income	290.5	220.2	200.4	565.3
Operating Expenses	1,731.3	1,878.6	3,313.2	5,326.8
BALANCE SHEET				
Net Property Plant and Equipment	11,183.2	11,029.5	11,442.7	11,708.7
Total Assets	13,952.4	13,818.1	15,967.0	19,211.5
Total Debt	5,873.0	5,591.6	5,584.1	7,110.3
Cash & Cash Equivalents	125.1	248.7	537.0	236.0
Net Debt	5,747.9	5,342.9	5,047.1	6,874.3
Total Liabilities	10,071.3	9,917.0	11,827.5	14,406.6
CASH FLOW				
Funds from Operations (FFO)	1,131.6	1,188.3	1,315.7	1,363.4
Cash Flow From Operations (CFO)	935.9	1,290.4	1,381.5	-231.4
Dividends	42.9	50.3	80.8	126.1
Retained Cash Flow (RCF)	1,088.7	1,138.0	1,234.9	1,237.3
Capital Expenditures	-793.3	-870.4	-925.8	-1,128.7
Free Cash Flow (FCF)	99.7	369.7	374.9	-1,486.2
INTEREST COVERAGE				
(FFO + Interest Expense) / Interest Expense	6.7x	8.2x	9.6x	9.2x
LEVERAGE				
FFO / Net Debt	19.7%	22.2%	26.1%	19.8%
RCF / Net Debt	18.9%	21.3%	24.5%	18.0%
FCF / Net Debt	1.7%	6.9%	7.4%	-21.6%

All figures are calculated using Moody's estimates and standard adjustments.
Source: Moody's Financial Metrics™

Endnotes

1 See Utility Regulator: Decision to Modify NIE Networks' Electricity Distribution and Transmission Licences; One Year Extension to the RP6 Price Control, Decision paper, March 2023

2 Available at https://www.nienetworks.co.uk/documents/future_plans/rp7-business-plan-full-report-april-2023.aspx

3 RP6 normalised to a 6-year equivalent to ensure like-for-like comparability with RP7. Figures use NIE Networks' latest best estimate of actual allowances to the end of RP6.

4 ESB: Driven to make a difference: Net Zero by 2040, ESB Strategy 2040 (February 2022) - available at https://cdn.esb.ie/media/docs/default-source/sustainability/esb-net-zero-to-2040-strategy---driven-to-make-a-difference.pdf?sfvrsn=5e132f8b_0

5 See https://esb.ie/media-centre-news/press-releases/article/2023/06/02/esb-and-%C3%B8rsted-enter-partnership-in-landmark-irish-offshore-offshore-wind-agreement.

REPORT NUMBER 1368599

MOODY'S INVESTORS SERVICE