

CREDIT OPINION

21 May 2019

Update

✓ Rate this Research

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.

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Electricity Supply Board (ESB)

Update following 2018 annual results

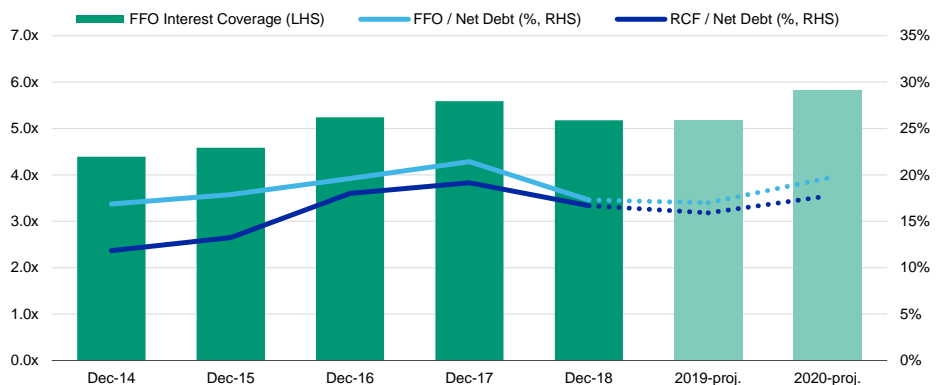
Summary

Electricity Supply Board (ESB)'s robust credit quality is supported by (1) the significant proportion of earnings from its regulated transmission and distribution operations in the Republic of Ireland (RoI, A2 stable) and Northern Ireland; (2) the low business risk profile of these businesses; (3) its solid financial profile, as reflected in its funds from operations (FFO)/net debt of 19.4% over the last three years and sound liquidity; and (4) potential support given its government ownership, should it become necessary.

Its credit quality is, however, constrained by (1) the relatively higher business risk profile of ESB's generation activities (20% of 2018 EBITDA); (2) lower capacity revenue following market reforms in October 2018; and (3) the challenges of a large capital investment programme (although mostly in the lower-risk regulated business).

Exhibit 1

We expect ESB's key metrics to remain subdued in 2019, before recovering in 2020



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

- » Three-quarters of earnings from monopoly networks businesses operating under consistent and transparent regulatory frameworks
- » Solid financial performance in an improving macroeconomic environment
- » Prudent financial policy
- » Diversified funding sources and sound liquidity

Credit challenges

- » Relatively higher business risk profile of generation and wholesale activities, exposed to low power prices
- » Lower capacity revenue from October 2018 and ongoing uncertainty in the generation business resulting from the redesign of the Irish Single Electricity Market (SEM)
- » Challenging final determination for RP6 in Northern Ireland
- » Large capital investment programme

Rating outlook

The stable outlook on ESB's ratings reflects (1) the stable outlook on Ireland's long-term government bond ratings; and (2) our expectation that ESB will maintain a credit profile consistent with the guidance for the Baa1 rating level, which includes FFO interest cover of above 3.5x and FFO/net debt of at least the midteens in percentage terms.

Factors that could lead to an upgrade

Upward pressure could develop on ESB's ratings if its underlying credit profile was expected to strengthen such that FFO interest cover and FFO/net debt were to be above 4.5x and 20%, respectively, on a sustained basis and there were no material negative consequences from the implementation of the new Integrated Single Electricity Market (I-SEM) and future capacity auctions.

Factors that could lead to a downgrade

Although not currently expected, downward rating pressure could arise from (1) a material debt-funded acquisition or capital investment that erodes ESB's financial flexibility; (2) material unfavourable changes in the regulatory framework in Ireland; (3) an increase in the proportion of non-regulated activities within ESB's business mix; (4) a substantial and persistent deterioration in the group's credit metrics; or (5) downward movement in the Government of Ireland's rating.

Key indicators

Exhibit 2

Key Indicators Electricity Supply Board (ESB)

| | Dec-14 | Dec-15 | Dec-16 | Dec-17 | Dec-18 | 2019-proj. | 2020-proj. |
|-------------------------|--------|--------|--------|--------|--------|------------|------------|
| FFO Interest Coverage | 4.4x | 4.6x | 5.2x | 5.6x | 5.2x | 5.2x | 5.8x |
| Net Debt / Fixed Assets | 52.4% | 53.9% | 51.0% | 50.1% | 51.1% | 50.1% | 49.4% |
| FFO / Net Debt | 16.9% | 17.9% | 19.6% | 21.4% | 17.3% | 17.0% | 19.6% |
| RCF / Net Debt | 11.8% | 13.3% | 18.0% | 19.2% | 16.7% | 15.9% | 17.7% |

[1] All ratios are based on Adjusted' financial data and incorporate Moody's [Global Standard Adjustments for Non-Financial Corporations](#); [2] Moody's Projections (proj.) are Moody's opinion and do not represent the views of the issuer; [3] For definitions of Moody's most common ratio terms please see the accompanying [User's Guide](#).

Sources: Moody's Financial Metrics, Moody's Investors Service estimates

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

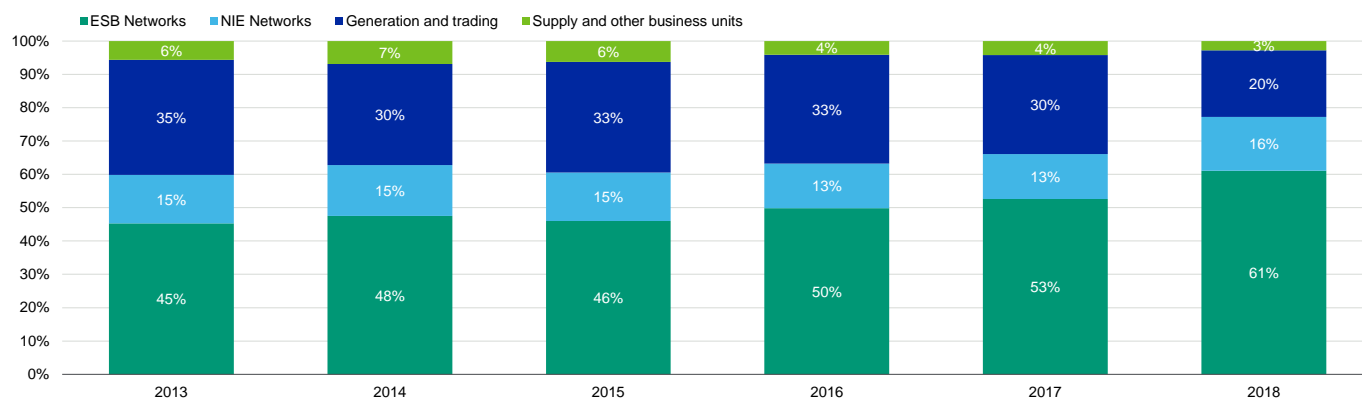
Profile

Electricity Supply Board (ESB) is the former incumbent vertically integrated electric utility in the 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.

The group's regulated businesses contribute the most of its earnings. Across RoI and Northern Ireland, ESB's network assets (which include over 180,000 km of power lines in the RoI and over 49,000 km in Northern Ireland) had a combined regulatory asset base (RAB) of around €9.6 billion as of the end of December 2018. In addition, the group had a market share of 38% across the Irish Single Electricity Market in 2018 and served 1.25 million electricity and gas customer accounts across Ireland, which equated to a 33% electricity market share.

Exhibit 3

Regulated networks earnings accounted for three-quarters of ESB's EBITDA in 2018



EBITDA breakdown before exceptional items and impairments. Networks earnings include the amortisation of supply contributions following the company's adoption of IFRS 15.

Source: Company reports

ESB is majority owned (95%) by the Government of Ireland through the Minister for Public Expenditure and Reform (85%) and the Minister for Communications, Climate Action and Environment (10%). The remaining 5% stake is held by an employee share ownership trust.

Detailed credit considerations

Three-quarters of earnings from price-regulated networks business supported by consistent and transparent regulatory frameworks

Three-quarters of ESB's EBITDA in 2018 came from the group's price-regulated transmission and distribution businesses. Regulated revenue, cost allowances and operational incentives are subject to multiyear price controls imposed by regulators in RoI (Commission for the Regulation of Utilities, CRU) and in Northern Ireland (Utility Regulator, UR).

The current five-year regulatory period in RoI, PR4, started in January 2016 for both the distribution and transmission businesses. In our view, the current period represents an extension of a consistent and predictable regulatory framework, with no material changes to the regulatory principles implemented in previous price controls.

Overall, we view the PR4 settlement as challenging, but manageable for ESB. Positively, all capital expenditure (capex) and operating expenditure (opex) spent by ESB during the previous period, PR3, was allowed on the basis that it was necessary and efficient. With respect to PR4, overall allowed revenue of €5.3 billion (real, 2014) is in line with ESB's submission. As expected, given the low interest rate environment, the allowed weighted average cost of capital of 4.95% (pretax, real) was lower than PR3's 5.95% (revised to 5.2% for 2014/15). However, this compares favourably to the allowed return of 4.63% set by the CRU for the five-year gas network control in Ireland in September 2017.

In addition, the CRU set opex and capex allowances for PR4 that will require ESB to achieve cost-efficiency improvements; however, these targets are achievable in our view. The PR4 capex allowance provides for a significant investment programme, which in part

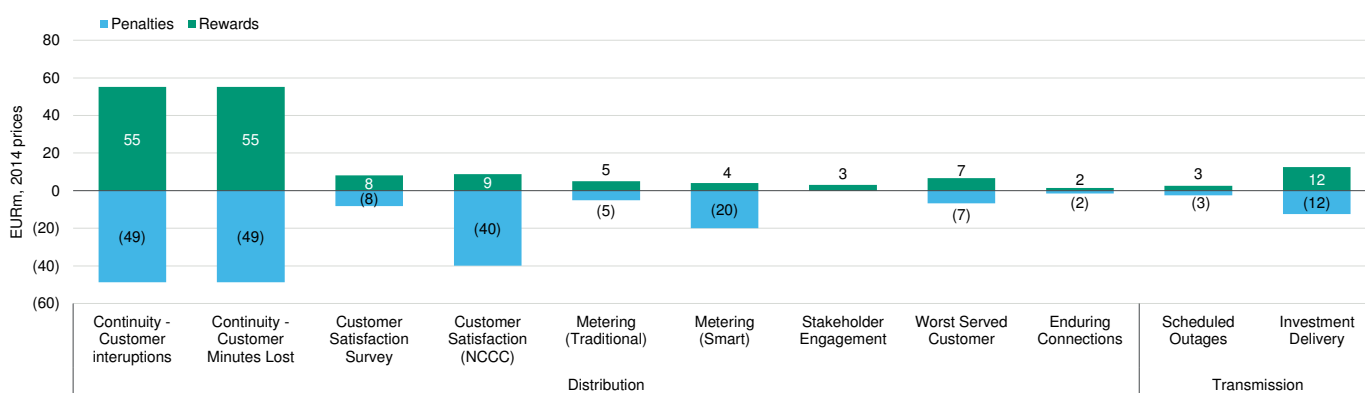
reflects an element of "catch-up" following the underspend in PR3. The CRU's projections for the RAB imply a growth over the five-year period of 12% to €6.0 billion (real, 2014) on the distribution side and of 32% to €2.8 billion (real, 2014) on the transmission side. Growth on the transmission side reflects the need to accommodate new wind farms, many of which are to be commissioned by 2019 in order to benefit from the REFIT tariff scheme.

There is also some potential upside from incentive mechanisms. In May 2018, the CRU published its decision on reporting and incentives under PR4, which confirmed the financial rewards/penalties available to ESB over the remaining years of the control period until 2020. In total, the potential financial incentives available range from minus €194 million to €163 million (both 2014 prices), with over half of the potential rewards/penalties relating to continuity of supply incentives. This represents around +/- 1% of the RAB per annum for the distribution network and +/- 0.1% of RAB per annum for transmission over the three years 2018-20.

Exhibit 4

Financial incentives are concentrated in the distribution network business

Potential rewards/penalties in PR4, € millions (2014 prices)



(1) "Customer satisfaction NCCC" refers to the incentive relating to the National Customer Contact Centre (NCCC) targets; (2) in this exhibit, the "Investment delivery" incentive includes the "Issue PIP" and "Construction and Energisation" incentives that were available in the first two years of PR4.

Sources: Moody's Investors Service, CRU

ESB is due to make its initial submissions to the regulator for the next price control (PR5) towards the end of this year, although we do not expect any significant decisions to be made until 2020.

Final RP6 determination for Northern Ireland is challenging, but has limited impact on overall credit quality

We view as challenging the final determination for ESB's Northern Ireland networks business (NIE), published by the Utility Regulator (UR) in June 2017 for the regulatory period from October 2017 to March 2024 (RP6). Specifically, NIE's earnings may suffer because (1) the allowance for direct network investment capex is 5.8% lower than that included in NIE's business plan; and (2) the allowed return was cut to 3.18% (vanilla, real) compared with 4.1% proposed by NIE.

More positively, (1) the allowed cost of debt in the RP6 allowed return covers the actual cost of existing debt and an allowance for the cost of new debt is substantially adjusted to reflect the expected prevailing market rate, as per the iBoxx BBB corporate index, at the time of issue of new debt; and (2) the UR increased NIE's opex allowances by £51 million, meaning that the final opex allowance is just 1.8% below NIE's business plan, compared with 13.7% below in the draft determination.

Overall, we estimate that the RP6 price settlement will have only limited impact on the overall robust credit quality of ESB, given that (1) NIE Networks' EBITDA of €190 million represented just 16% of group earnings in 2018; (2) NIE Networks focus on operating and delivering its RP6-approved work programme within regulatory cost allowances; (3) the lower weighted average cost of capital reflects the current low interest rate environment and NIE Networks will benefit from lower rates as it refinances its debt, although the company has limited maturities over the period; and (4) more generally, ESB benefits from financial flexibility to accommodate potential downside scenarios.

Remaining one-quarter of earnings from higher-risk generation and supply businesses, with most of ESB's incumbent plant successful in capacity auctions

Most of the group earnings not derived from regulated network businesses come from ESB's power generation business (ESB generation and trading, formerly generation and wholesale markets), which accounted for 20% of EBITDA in 2018.

Power prices in Ireland increased to around €65/MWh during 2018, significantly higher than €50/MWh in 2017 and €44/MWh in 2016. This increase followed both planned and unplanned outages at a number of key power stations, including at ESB's Moneypoint site. Additionally, spark spreads for both coal and gas increased in 2018 relative to 2017. Since the beginning of 2019, prices have moderated to around €50/MWh with increased plant availability.

As part of the redesign of the Irish electricity market (I-SEM reforms), the previous availability-based capacity payment mechanism was replaced with a series of competitive capacity auctions. Across Ireland, this has reduced the revenue available to electricity generators by around €180 million (around 35%) per annum.

As expected, the shift to capacity auctions under I-SEM has resulted in older "out-of-merit" generators becoming uneconomic and plant closures. At the first T-1 auction, held in December 2017, ESB's steam turbine unit at Aghada (221 MW) and the Marina OCGT plant (78 MW) were unsuccessful and subsequently closed at the commencement of I-SEM. Similarly, ESB has announced that the gas plant at North Wall (104 MW) will be decommissioned once the current capacity year ends on 30 September 2019 following its failure to pre-qualify for the 2019-20 T-1 auction, held in December 2019.

Ireland's first T-4 capacity auction was held in March 2019, for delivery of capacity between 1 October 2022 to 30 September 2023. While 89% of ESB's existing capacity was successful, 335 MW of derated capacity was not. This included Moneypoint Unit 2 (229 MW), the Lough Ree peat station (78 MW) and one gas turbine at Coolkeeragh (48 MW). The company is currently assessing options for these plants. However, this unsuccessful capacity was more than offset by 489 MW of new capacity, comprising 75% flexible generation (high-frequency gas turbines) and 25% battery storage, which were awarded long-term contracts covering October 2022-September 2032. Overall, we see the first few capacity auctions as credit neutral for ESB (see [T-4 capacity auction results credit negative for Viridian, neutral for ESB](#), 15 April 2019).

Exhibit 5

Most of ESB's incumbent plant has been successful, but unsuccessful plants are now likely to close

Results for ESB generating units in I-SEM capacity auctions

| | | 2018-19 T-1 | 2019-20 T-1 | 2022-23 T-4 |
|-----------------------------|-----------|-----------------------------------|-------------------------------|-------------------------------|
| Date auction held | | Dec-17 | Dec-18 | Mar-19 |
| Capacity delivery dates | | October 2018 - September 2019 [1] | October 2019 - September 2020 | October 2022 - September 2023 |
| Clearing price | | | | |
| Main auction | €/MW/year | 41,800 | 40,646 | 46,150 |
| Locational constraints [2] | €/MW/year | 42,990 | 50,270 | N/A |
| Existing capacity | | | | |
| Qualified de-rated capacity | MW | 3,594 | 3,201 | 3,112 |
| Capacity awarded | MW | 3,295 | 3,201 | 2,756 |
| % successful | % | 92% | 100% | 89% |
| New capacity | | | | |
| Qualified de-rated capacity | MW | 20 | 6 | 711 |
| Capacity awarded | MW | 0 | 0 | 489 |
| % successful | % | 0% | 0% | 69% |

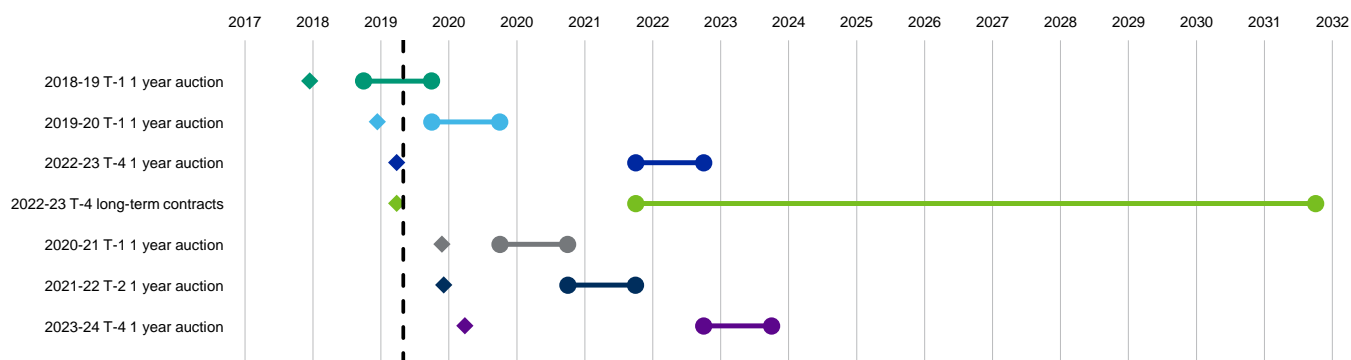
[1] The initial T-1 capacity auction was originally planned to award capacity between May 2018 and September 2019, but was shorted following the delayed commencement of I-SEM. [2] Higher clearing prices for areas with locational constraints are only shown where ESB was awarded a higher price. A higher price was awarded for North Wall in the 2018-19 T-1 auction and for Shellybanks in the 2019-20 T-1 auction, to satisfy the Greater Dublin locational constraint. Greater Dublin's locational constraints were satisfied at the main clearing price for the 2022-23 T-4 auction.

Sources: SEMO, Moody's Investors Service

Ireland will hold its final two transitional auctions in November and December this year for capacity to be delivered between October 2020 and September 2022. Following these, the market will hold regular annual T-4 auctions, with supplemental T-1 auctions to be held once demand curves have been finalised.

Exhibit 6

Timeline of I-SEM capacity auctions



Diamonds represent the date on which a capacity auction will be held, while lines represent the delivery dates for successful capacity.

Sources: SEMO, Moody's Investors Service

Alongside capacity payments, ESB can also generate revenue through the provision of ancillary services, which are needed to manage increasing intermittent renewable generation. The overall ancillary service market is growing on a glide path from an initial pot of €75 million in 2016 up to a cap of €235 million in 2020. In 2018, ESB provided 53% of these ancillary services.

ESB commissioned the 885 MW combined-cycle gas-fired plant at Carrington, near Manchester, in September 2016. The €820 million investment was achieved within budget and contributed positively to EBITDA in its first full year of operation in 2017. We expect the impact of the project on group credit metrics to be positive as it continues to generate earnings (we estimate annual EBITDA of €60 million - €80 million) and repays associated debt. ESB has continued to grow its portfolio of Great British assets, including (1) the Tilbury biomass plant, a joint venture with Green Power Holdings, achieving commercial operation in January 2019; and (2) the acquisition of a 12.5% stake in the Galloper offshore wind farm, which reached commercial operation in September 2018.

The relatively minor share of ESB's generation assets within Great Britain means that the current suspension of the GB capacity market does not have a material impact on the company (see [European court ruling on UK capacity market puts £4.3 billion of contracts at risk](#), 19 November 2018, for further details of the suspension).

Moderate risk from decarbonisation of the power sector

The European Union has committed to reduce greenhouse gas emissions by 40% from 1990 levels by 2030 and the Government of Ireland has set a target of 40% of electricity consumption to come from renewable energy by 2020. These targets are designed to significantly decarbonise the regional/national economy. Achieving these reductions will create a variety of risks and opportunities for ESB's generation and trading business.

We believe ESB is moderately well positioned to manage the challenges related to these targets. Three-quarters of ESB's EBITDA comes from regulated networks, which will provide resilient earnings under a variety of decarbonisation scenarios. Although renewables make up only 14% of ESB's capacity, over two-thirds of its generation capex programme between 2019 and 2023 is expected to focus on renewable generation investment, which will benefit from the existing REFIT incentive schemes, as well as the new Renewable Energy Support Scheme (RESS), which begins in late 2019.

Solid financial performance in an improving macroeconomic environment

ESB's FFO/net debt fell to 17.3% in 2018 from 21.4% in 2017 and 19.6% in 2016. This decrease reflected a combination of a decline in FFO and higher reported net debt. The decline in FFO was itself based on a 7.8% drop in reported EBITDA to €1,176 million, with the reduction in generation EBITDA only partially offset by an increase in the networks business following the recognition of customer contributions as revenue.

In an improving macroeconomic environment (which we estimate will be reflected in GDP growth of 4.2% and 3.4% in 2019 and 2020, respectively), we estimate ESB's FFO will remain suppressed in 2019 as the company completes its agreed funding plan for its defined benefit pension scheme, before returning to previous levels in 2020. With annual capex estimated to rise above €1 billion from 2019 onwards, the outlook is for net debt to continue to increase gradually. However, a growing fixed asset base means that leverage will remain close to 50% and we estimate FFO/net debt will remain at least in the high teens in percentage terms, consistent with our guidance for the Baa1 rating.

Prudent financial policy means leverage will remain moderate despite significant capital expenditure programme

ESB agreed its dividend policy with the Irish Government in 2013 to target a pay-out ratio of 40% of normalised profit after tax. In January 2015, ESB completed the payment of €421 million of special dividends to its shareholders, which it agreed in 2013 to fund through the sale of non-core assets. The final tranche was partially funded by a drawdown of ESB's credit facilities rather than, as originally envisaged, through the sale of the peat-fired generation assets at West Offaly and Lough Ree.

We expect the Irish government to act in a flexible manner and to support ESB in its explicit aim to sustain a minimum Baa1 rating. To this end, we expect the company to remain moderately levered (with net debt/fixed assets below 60%) for the foreseeable future despite what we consider a material capital investment programme agreed with the CRU as part of the RoI networks price control. The company will need regular access to capital markets to fund what we expect to be around €1 billion capital outlay per annum.

Government-Related Issuer methodology considerations

ESB is 95% owned by the Irish government, and as such we consider the company's rating according to our methodology for [Government-Related Issuers](#) (GRIs), published in June 2018. At A3, ESB's rating is based on our evaluation of the company's standalone credit strength, the Baseline Credit Assessment (BCA) of baa1, and incorporates a one-notch uplift for potential government support. The stable outlook on ESB's A3 ratings mirrors the stable outlook on the government's bond rating.

Liquidity analysis

ESB has a sound liquidity position. As of 31 December 2018, the company reported around €229 million of cash and cash equivalents and a €1.44 billion revolving credit facility maturing in January 2022, with €1.37 billion undrawn.

We estimate that ESB would have sufficient liquidity through cash, committed facilities and around €1.8 billion of retained cash flow to fund around €1.8 billion of capital expenditure and about €890 million of debt amortisations and maturities over the next 18 months if it did not have access to capital markets or other sources of funding not already committed.

Rating methodology and scorecard factors

Our rating assessment of ESB is based on our methodology for [Regulated Electric & Gas Networks](#), published in March 2017, and also takes into account the [Government-Related Issuers](#) methodology, published in June 2018. While the methodology grid maps ESB to A2 based on three years of historical metrics and A2 based on our forward view of financial metrics, the BCA of baa1 is lower. This 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 7

Rating factors - Electricity Supply Board (ESB)

| Regulated Electric and Gas Networks Industry Grid [1][2] | Current FY 31/12/2018 | | Moody's 12-18 Month Forward View As of May 2019 [3] | |
|--|--------------------------|----------|---|----------|
| | Measure | Score | Measure | Score |
| Factor 1 : Regulatory Environment and Asset Ownership Model (40%) | | | | |
| a) Stability and Predictability of Regulatory Regime | Aa | Aa | Aa | Aa |
| 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 | Baa | Baa | Baa | Baa |
| Factor 3 : Financial Policy (10%) | | | | |
| a) Financial Policy | Baa | Baa | Baa | Baa |
| Factor 4 : Leverage and Coverage (40%) | | | | |
| a) FFO Interest Coverage (3 Year Avg) | 5.3x | A | 5.2x - 5.6x | A |
| b) Net Debt / Fixed Assets (3 Year Avg) | 50.7% | A | 49% - 52% | A |
| c) FFO / Net Debt (3 Year Avg) | 19.4% | A | 17% - 20% | A |
| d) RCF / Net Debt (3 Year Avg) | 17.9% | A | 16% - 19% | A |
| Rating: | | | | |
| Indicated Rating from Grid Factors 1-4 | | A2 | | A2 |
| Rating Lift | 0 | 0 | 0 | 0 |
| a) Indicated Rating from Grid | | A2 | | A2 |
| b) Actual Rating Assigned | | | | baa1 |
| Government-Related Issuer | Factor | | | |
| a) Baseline Credit Assessment | baa1 | | | |
| b) Government Local Currency Rating | A2 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 31/12/2018; [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 8

| 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 9

Peer comparison

Electricity Supply Board (ESB)

| | Electricity Supply Board (ESB) | | | Gas Networks Ireland [1] | | | National Grid Electricity Transmission plc [2] | | |
|-------------------------|--------------------------------|---------------|---------------|--------------------------|---------------|---------------|--|---------------|---------------|
| | BCA: baa1 A3 Stable | | | BCA: a3 A2 Stable | | | A3 Stable | | |
| in EUR millions | FYE Dec-16 | FYE Dec-17 | FYE Dec-18 | FYE Dec-15 | FYE Dec-16 | FYE Dec-17 | FYE Mar-16 | FYE Mar-17 | FYE Mar-18 |
| Revenue | 3,212 | 3,229 | 3,368 | 491 | 498 | 473 | 5,174 | 5,150 | 4,698 |
| EBITDA | 1,154 | 1,252 | 1,170 | 307 | 333 | 311 | 2,056 | 2,075 | 1,755 |
| Total Debt | 5,741 | 5,467 | 5,773 | 1,258 | 1,492 | 1,411 | 9,631 | 9,027 | 8,635 |
| Cash & Cash Equiv. | 364 | 380 | 229 | 97 | 61 | 51 | 3 | 20 | 12 |
| EBITDA Margin % | 36% | 39% | 35% | 62% | 67% | 66% | 40% | 40% | 37% |
| FFO Interest Coverage | 5.2x | 5.6x | 5.2x | 5.9x | 6.9x | 12.0x | 3.5x | 4.6x | 2.2x |
| Net Debt / Fixed Assets | 51% | 50% | 51% | 46% | 56% | 53% | 63% | 63% | 60% |
| FFO / Net Debt | 20% | 21% | 17% | 21% | 19% | 19% | 16% | 18% | 14% |
| RCF / Net Debt | 18% | 19% | 17% | 8% | 16% | 15% | 12% | 16% | 5% |

[1] GNI's full-year financial statements are only available for 2016 and 2017. Key indicators have also been included for GNI's parent company, Ervia, for 2015. [2] Converted into EUR from the original GBP.

Source: Moody's Financial Metrics™

Exhibit 10

Moody's-adjusted debt breakdown

Electricity Supply Board (ESB)

| in EUR millions | FYE Dec-14 | FYE Dec-15 | FYE Dec-16 | FYE Dec-17 | FYE Dec-18 |
|---------------------------|---------------|---------------|---------------|---------------|---------------|
| As Reported Net Debt | 4,639.2 | 4,975.3 | 4,523.8 | 4,377.4 | 4,914.9 |
| Pensions | 895.1 | 790.2 | 695.4 | 537.4 | 506.0 |
| Operating Leases | 108.5 | 139.4 | 158.5 | 171.5 | 123.4 |
| Moody's Adjusted Net Debt | 5,642.8 | 5,904.9 | 5,377.7 | 5,086.3 | 5,544.3 |

All figures are calculated using Moody's estimates and standard adjustments.

Source: Moody's Financial Metrics™

Exhibit 11

Moody's-adjusted FFO breakdown

Electricity Supply Board (ESB)

| in EUR millions | FYE Dec-14 | FYE Dec-15 | FYE Dec-16 | FYE Dec-17 | FYE Dec-18 |
|--------------------------|---------------|---------------|---------------|---------------|---------------|
| As Reported FFO | 839.7 | 906.5 | 848.7 | 888.3 | 790.3 |
| Pensions | 56.8 | 104.1 | 143.4 | 148.9 | 21.3 |
| Operating Leases | 7.2 | 9.0 | 12.9 | 16.1 | 16.0 |
| Capitalised Interest | -48.0 | -52.6 | -49.2 | -23.5 | -25.4 |
| Align FFO | 57.7 | 55.4 | 59.1 | 13.6 | 47.5 |
| Non-Standard Adjustments | 38.5 | 33.3 | 40.8 | 46.6 | 110.0 |
| Moody's Adjusted FFO | 952.0 | 1,055.7 | 1,055.6 | 1,090.1 | 959.8 |

All figures are calculated using Moody's estimates and standard adjustments. Nonstandard adjustments are primarily driven by the inclusion of deferred income received.

Source: Moody's Financial Metrics™

Exhibit 12

Select historical Moody's-adjusted financial data
Electricity Supply Board (ESB)

| in EUR millions | FYE Dec-14 | FYE Dec-15 | FYE Dec-16 | FYE Dec-17 | FYE Dec-18 |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|
| INCOME STATEMENT | | | | | |
| Revenue | 3,258.0 | 3,335.4 | 3,211.8 | 3,229.0 | 3,367.5 |
| EBITDA | 1,107.6 | 1,422.9 | 1,154.1 | 1,252.5 | 1,169.7 |
| EBITDA Margin % | 34.0% | 42.7% | 35.9% | 38.8% | 34.7% |
| EBIT | 369.5 | 669.2 | 380.7 | 420.7 | 374.3 |
| EBIT Margin % | 11.3% | 20.1% | 11.9% | 13.0% | 11.1% |
| Interest Expense | 280.3 | 294.2 | 248.8 | 237.5 | 229.6 |
| BALANCE SHEET | | | | | |
| Cash & Cash Equivalents | 143.7 | 133.9 | 363.6 | 380.4 | 229.1 |
| Total Assets | 13,034.0 | 13,244.1 | 13,016.0 | 12,441.8 | 13,402.1 |
| Total Liabilities | 9,188.6 | 9,429.6 | 9,131.8 | 8,746.1 | 9,774.3 |
| CASH FLOW | | | | | |
| Funds From Operations (FFO) | 952.0 | 1,055.7 | 1,055.6 | 1,090.1 | 959.8 |
| FFO / Net Debt | 16.9% | 17.9% | 19.6% | 21.4% | 17.3% |
| Capital Expenditures | 855.9 | 729.4 | 724.3 | 781.2 | 897.6 |
| Dividends | 283.8 | 272.7 | 86.5 | 115.8 | 34.9 |
| Retained Cash Flow (RCF) | 668.2 | 783.0 | 969.1 | 974.3 | 924.9 |
| RCF / Net Debt | 11.8% | 13.3% | 18.0% | 19.2% | 16.7% |
| INTEREST COVERAGE | | | | | |
| EBITDA / Interest Expense | 4.0x | 4.8x | 4.6x | 5.3x | 5.1x |
| (FFO + Interest) / Interest Expense | 4.4x | 4.6x | 5.2x | 5.6x | 5.2x |
| LEVERAGE | | | | | |
| Debt / EBITDA | 5.2x | 4.2x | 5.0x | 4.4x | 4.9x |
| Net Debt / EBITDA | 5.1x | 4.1x | 4.7x | 4.1x | 4.7x |
| Debt / Book Capitalization | 55.5% | 57.0% | 55.6% | 55.6% | 57.5% |

Source: Moody's Financial Metrics™

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