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CREDIT OPINION
22 May 2018

Update

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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 to credit analysis following FY17 annual report

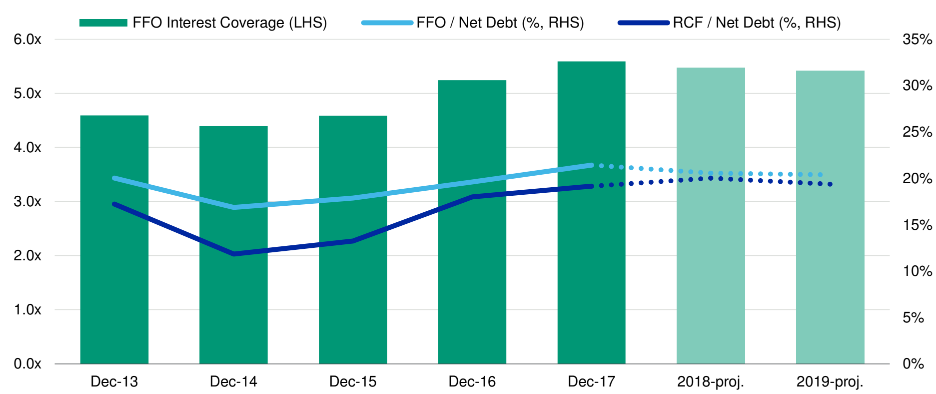
Summary

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) an improved leverage profile, as reflected in FFO / Net Debt of 21.4% in 2017, up from 19.6% in 2016, and sound liquidity; and (4) potential support given government ownership, should it become necessary.

Credit quality is, however, constrained by (1) the relatively higher business risk profile of ESB's generation and wholesale activities (30% of 2017 EBITDA); (2) lower capacity revenue from October 2018 and increased uncertainty for the generation business resulting from the re-design of the Irish electricity market; and (3) the challenges of a large capital investment programme (albeit mostly in the lower risk regulated business).

Exhibit 1

We expect FFO / net debt and FFO interest coverage to remain broadly consistent with recent performance



Moody's Projections (proj.) are Moody's opinion and do not represent the views of the issuer.
Source: Moody's Financial Metrics™, Moody's projections

Credit Strengths

- Two-thirds of earnings from monopoly networks businesses operating under a consistent and transparent regulatory framework
- Solid financial performance against an improving macroeconomic environment
- Prudent financial policy
- Diversified funding sources and sound liquidity position

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 re-design 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) Moody's expectation that ESB will maintain a credit profile consistent with guidance for the Baa1 rating level, which includes FFO interest cover of above 3.5x and FFO / Net Debt of at least the mid-teens in percentage terms.

Factors that Could Lead to an Upgrade

Upwards pressure could develop on ESB's ratings if ESB's underlying credit profile was to strengthen such that FFO interest cover and FFO / Net Debt were expected to be sustainably above 4.5x and 20%, respectively and no material negative consequences arise from the review of the Irish Single Electricity Market design.

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 eroded 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-13	Dec-14	Dec-15	Dec-16	Dec-17	2018-proj.	2019-proj.
FFO Interest Coverage	4.6x	4.4x	4.6x	5.2x	5.6x	5.5x	5.4x
Net Debt / Fixed Assets	51.6%	52.4%	53.9%	51.0%	50.1%	49.7%	50.8%
FFO / Net Debt	20.0%	16.9%	17.9%	19.6%	21.4%	20.6%	20.4%
RCF / Net Debt	17.2%	11.8%	13.3%	18.0%	19.2%	20.0%	19.4%

Notes: [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.
Source: Moody's Financial Metrics™, Moody's Investors Service estimates

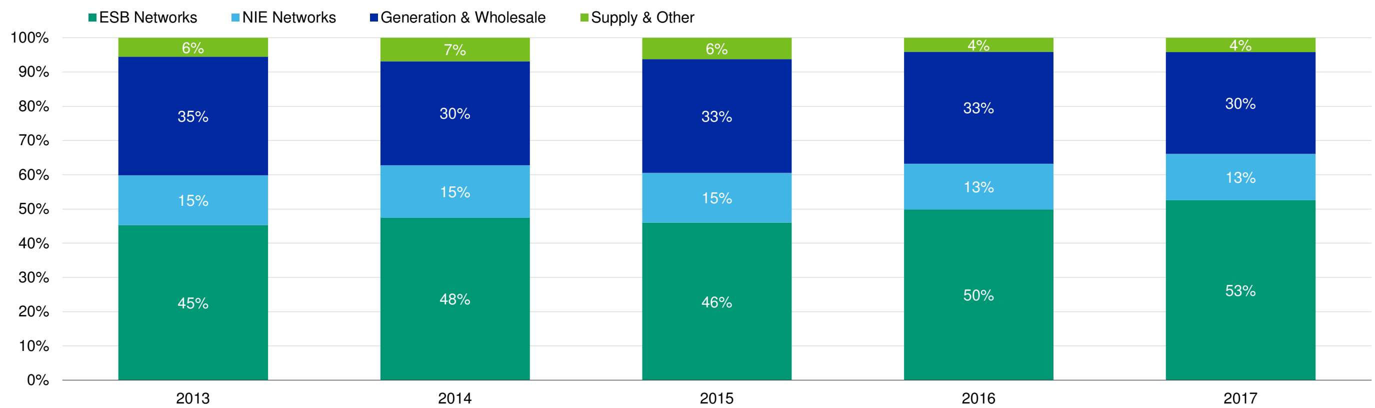
Profile

ESB is the former incumbent vertically integrated electric utility in the RoI, which holds leading market positions in power generation and electricity supply, as well as being the monopoly owner of electricity distribution and transmission networks across RoI and Northern Ireland.

The group's regulated businesses contribute the majority of earnings. Across RoI and Northern Ireland, ESB's network assets (which include over 180,000 km of power lines in RoI and over 49,000 km in Northern Ireland) had a combined regulatory asset base (RAB) of approximately €9.4 billion as at the end of December 2017. In addition, the group had a market share of 42% across the Irish Single Electricity Market (SEM) during 2017 and served 1.4 million electricity and gas customer accounts across Ireland, which equated to a 34% electricity market share.

Exhibit 3

Regulated networks earnings account for two-thirds of ESB's EBITDA



Source: Company data

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

Detailed Credit Considerations

Two-thirds of earnings from price-regulated networks business supported by consistent and transparent regulatory frameworks

Two-thirds of ESB's earnings before depreciation and amortisation (EBITDA) in 2017 came from the group's price-regulated transmission and distribution businesses. Regulated revenues, cost allowances and operational incentives are subject to multi-year 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 revenues of €5.3 billion (real, 2014) are in line with ESB's submission. As expected, given the low interest rate environment, the allowed WACC of 4.95% (pre-tax, 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 5-year gas network control in Ireland in September 2017.

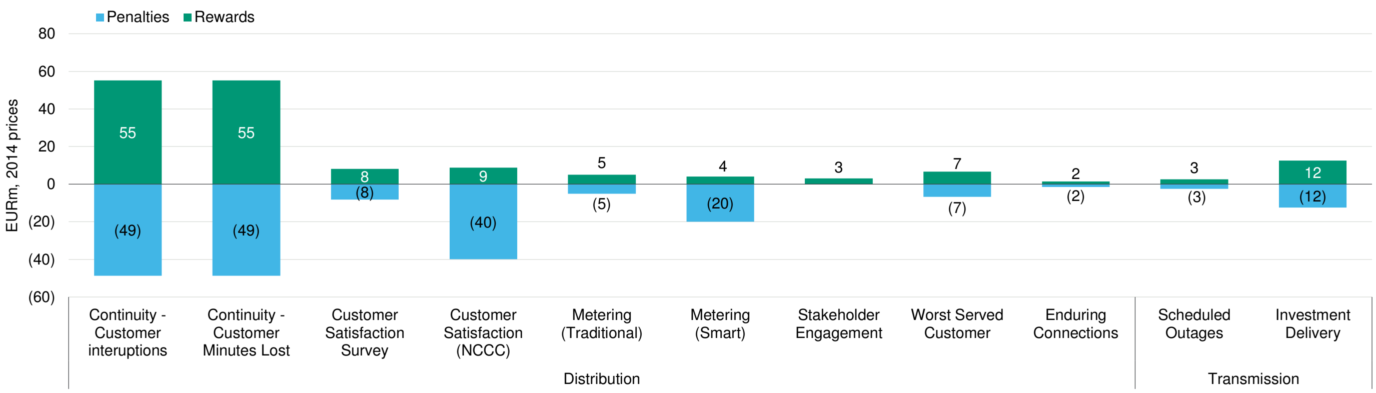
In addition, the CRU set opex and capex allowances for PR4 that will require ESB to achieve cost efficiency improvements; however these targets are achievable in our view. The PR4 capex allowance provides for a significant investment programme, which in part reflects an element of `catch-up' following the underspend in PR3. The CER's projections for the regulated asset base (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 three years of the control period till 2020. In total, the potential financial incentives available ranges 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 c. +/- 1% of the regulated asset base (RAB) per annum for the distribution network and +/- 0.1% of RAB per annum for transmission over the three years 2018 to 2020.

Exhibit 4

Financial incentives are concentrated in the distribution network

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



Notes: (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 "Constuction and Energisation" incentives that were available in the first two years of PR4

Source: Moody's Investors Service, CRU

Final RP6 determination for Northern Ireland is challenging, but with 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 to 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 £51m meaning that the final opex allowance is just 1.8% below NIE's business plan, compared to 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 €172 million represented just 13% of group earnings in 2017; (2) NIE Networks focus on operating and delivering its RP6 approved work programme within regulatory cost allowances; (3) the lower WACC 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 is well positioned against our guidance for the current rating.

Remaining one third of earnings from higher-risk generation and supply businesses, but ESB well-placed to cope with low power prices and evolving market

The majority of group earnings not derived from regulated network businesses are from ESB's power generation business (ESB Generation and Wholesale Markets, GWM), which accounted for 30% of EBITDA in 2017.

Power prices in Ireland have fallen significantly in recent years with weighted average prices in 2017 at c. €50/MWh. While this is c.13% higher than weighted average prices in 2016 it is still c.7% below average prices in 2015 of €53/MWh. Additionally, spark spreads for both coal and gas were subdued during 2017, also contributing to lower earnings. We expect power prices to remain low for the forseeable future, which will continue to have a negative impact on ESB's earnings from power generation. We estimate the contribution of this division to fall to less than 25% of group EBITDA by 2019.

The current capacity payment mechanism helps stabilise generation earnings even as load factors for some of ESB's older gas-fired power plants decline as they have been pushed out of merit. However, the level of remuneration under this mechanism will fall from late 2018 as part of the re-design of the Irish electricity market (Integrated Single Electricity Market or I-SEM reforms) which have been further delayed, and are now expected to be ready for implementation by October 2018. In the first I-SEM capacity auction, held in December 2017, ESB was awarded capacity contracts for 91% of its qualified capacity, with two of its generation units (221 MW at Aghada and 78 MW at the Marina open cycle gas turbine plant) unsuccessful in the auction (see "Capacity auction results credit negative for Viridian, neutral for ESB", 30 January 2018).

However, we expect payments for ancillary services (needed to manage increasing intermittent renewable generation) and regulatory supports will increase, potentially offsetting the lower capacity payments. At this stage, the impact of the I-SEM reforms on the wholesale power price is unclear; our power price forecasts assume it will be neutral.

ESB commissioned the 885 megawatt 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 should be positive as it continues to generate earnings (we estimate annual EBITDA of €60-80 million) and repays associated debt.

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 GWM business.

We believe ESB is moderately well-positioned to manage the challenges related to these targets. Two-thirds of ESB's EBITDA is provided by regulated networks, which will provide resilient earnings under a variety of decarbonisation scenarios. Although renewables currently make up only 13% of ESB's capacity, over two-thirds of ESB's GWM capex programme between 2018 and 2022 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) currently being consulted on by the Government of Ireland.

Solid financial performance against an improving macroeconomic environment

The group's financial profile improved in 2017, with FFO / Net Debt increasing to 21.4% from 19.6% in the prior year. This reflected a combination of flat FFO, and lower reported net debt. Stable FFO was itself based on a 3.7% decline in reported EBITDA to €1,276 million, which reflected lower energy and supply margins during the year. Lower reported net debt declined by €146 million to €4,377 million at end-2017, reflecting favourable currency effects on sterling denominated liabilities which are used to finance its UK investments.

Against an improving macroeconomic environment (which Moody's estimates will be reflected in GDP growth of 5.0% and 3.5% in 2018 and 2019 respectively), we estimate FFO will decline in 2018, as ESB completes it's agreed funding plan for the ESB defined benefit pension scheme, before returning to current levels in 2019. With annual capex estimated to rise above €1 billion from 2018 onwards, the outlook is for net debt to increase gradually from 2018. We therefore estimate FFO / Net Debt will decline slightly in 2018, but to remain in at least the high teens, consistent with Moody's guidance for a 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 profits 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 to fixed assets below 60%) for the foreseeable future despite what we consider to be 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 Moody's considers the company's rating according to its methodology for Government-Related Issuers (GRIs), published in August 2017. At A3, ESB's rating is based upon Moody's evaluation of the company's stand-alone credit strength, the baseline credit assessment or 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

We consider ESB to have a sound liquidity position. As at 31 December 2017, the company reported approximately €380 million of cash and cash equivalents and €1.52 billion of undrawn committed facilities, including a €1.44 billion revolving credit facility maturing in 2022.

We estimate that ESB would have sufficient liquidity through cash, committed facilities and approximately €1.3 billion of retained cash flow to fund approximately €1.4 billion of capital expenditure and about €680 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 Issuer methodology, published in August 2017. Whilst the methodology grid maps ESB to A2 based on three years of historic metrics and A2 based on our forward view of financial metrics, the BCA of baa1 is lower. This reflects the additional risk compared to peers rated under the methodology posed by the material contribution to group earnings from unregulated businesses, such as power generation and electricity supply.

Exhibit 5
Electricity Supply Board Rating Factors Grid

Regulated Electric and Gas Networks Industry Grid [1][2]	Current FY Dec-17		Moody's 12-18 Month Forward View As of May 2018 [3]	
Factor 1 : Regulatory Environment and Asset Ownership Model (40%)	**Measure**	**Score**	**Measure**	**Score**
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)	5.1x	A	5x - 5.2x	A
b) Net Debt / Fixed Assets (3 Year Avg)	51.7%	A	50% - 52%	A
c) FFO / Net Debt (3 Year Avg)	19.6%	A	19% - 21%	A
d) RCF / Net Debt (3 Year Avg)	16.7%	A	17% - 20%	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 31/12/2017; [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 6

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 7

Electricity Supply Board (ESB)

Peer Comparison Table

	Electricity Supply Board (ESB)			Gas Networks Ireland [1]		National Grid Electricity Transmission plc [2]			Eurogrid GmbH			Terna S.p.A.	
	BCA: baa1 A3 Stable			BCA: a3 A2 Stable		A3 Stable			Baa1 Under Review for Downgrade			Baa1 Negative	
in EUR millions	FYE Dec-15	FYE Dec-16	FYE Dec-17	FYE Dec-15	FYE Dec-16	FYE Mar-15	FYE Mar-16	FYE Mar-17	FYE Dec-15	FYE Dec-16	FYE Dec-17	FYE Dec-16	FYE Dec-17
Revenue	3,335	3,212	3,229	491	498	5,157	5,037	5,162	9,448	9,434	10,092	2,012	2,033
EBITDA	1,391	1,154	1,252	307	333	2,243	2,001	2,080	56	364	766	1,549	1,530
Total Debt	6,039	5,741	5,467	1,258	1,492	10,433	9,375	9,048	1,978	2,880	2,873	8,481	8,861
Cash & Cash Equiv.	134	364	380	97	61	4	3	20	1,008	1,223	1,407	432	877
EBITDA Margin %	43%	37%	40%	62%	67%	43%	40%	40%	1%	4%	8%	77%	75%
FFO Interest Coverage	4.6x	5.2x	5.6x	5.9x	6.9x	3.7x	3.5x	4.6x	12.8x	5.8x	4.4x	7.9x	11.4x
Net Debt / Fixed Assets	54%	51%	50%	46%	56%	68%	63%	63%	27%	40%	33%	67%	64%
FFO / Net Debt	18%	20%	21%	21%	19%	16%	16%	18%	42%	18%	16%	13%	14%
RCF / Net Debt	13%	18%	19%	8%	16%	7%	12%	16%	32%	12%	9%	8%	9%

[1] GNI's full-year financial statements are only available for 2016. 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 8

Electricity Supply Board (ESB)

Moody's Adjusted Debt Breakdown

in EUR millions	FYE Dec-13	FYE Dec-14	FYE Dec-15	FYE Dec-16	FYE Dec-17
As Reported Net Debt	4,305.4	4,639.2	4,975.3	4,523.8	4,377.4
Pensions	875.9	895.1	790.2	695.4	537.4
Operating Leases	93.8	108.5	139.4	158.5	171.5
Moody's Adjusted Net Debt	5,275.1	5,642.8	5,904.9	5,377.7	5,086.3

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

Exhibit 9

Electricity Supply Board (ESB)

Moody's Adjusted EBITDA Breakdown

in EUR millions	FYE Dec-13	FYE Dec-14	FYE Dec-15	FYE Dec-16	FYE Dec-17
As Reported EBITDA	1,475.4	1,239.9	1,402.4	1,166.3	1,302.4
Pensions	0.0	2.4	0.1	0.2	2.0
Operating Leases	11.2	10.9	13.9	18.6	21.7
Interest Expense Discounting	-9.4	-6.2	-3.2	-2.9	-2.6
Unusual Items	-100.1	-140.7	0.4	-10.3	-46.6
Non-Standard Adjustments	-54.4	-30.9	-23.0	-17.9	-24.5
Moody's Adjusted EBITDA	1,322.7	1,075.3	1,390.7	1,154.1	1,252.5

All figures are calculated using Moody's estimates and standard adjustments. Unusual Items is primarily driven by the reversal of profits on disposals.
Source: Moody's Financial Metrics™

Exhibit 10

Electricity Supply Board (ESB)

Selected Historic Moody's Adjusted Financial Data

in EUR millions	FYE Dec-13	FYE Dec-14	FYE Dec-15	FYE Dec-16	FYE Dec-17
INCOME STATEMENT					
Revenue	3,422.5	3,258.0	3,335.4	3,211.8	3,229.0
EBITDA	1,322.7	1,075.3	1,390.7	1,154.1	1,252.5
EBITDA Margin %	38.6%	33.0%	41.7%	35.9%	38.8%
EBIT	658.8	369.5	669.2	413.9	453.5
EBIT Margin %	19.2%	11.3%	20.1%	12.9%	14.0%
Interest Expense	294.1	280.3	294.2	248.8	237.5
BALANCE SHEET					
Cash & Cash Equivalents	209.9	143.7	133.9	363.6	380.4
Total Assets	12,840.5	13,034.0	13,244.1	13,016.0	12,441.8
Total Liabilities	8,750.6	9,188.6	9,429.6	9,131.8	8,746.1
CASH FLOW					
Funds From Operations (FFO)	1,056.3	952.0	1,055.7	1,055.6	1,090.1
FFO / Net Debt	20.0%	16.9%	17.9%	19.6%	21.4%
Capital Expenditures	699.2	855.9	729.4	724.3	781.2
Dividends	146.8	283.8	272.7	86.5	115.8
Retain Cash Flow (RCF)	909.5	668.2	783.0	969.1	974.3
RCF / Net Debt	17.2%	11.8%	13.3%	18.0%	19.2%
Free Cash Flow (FCF)	129.1	-147.5	-44.5	318.6	187.7
FCF / Net Debt	2.4%	-2.6%	-0.8%	5.9%	3.7%
INTEREST COVERAGE					
EBITDA / Interest Expense	4.5x	3.8x	4.7x	4.6x	5.3x
(FFO + Interest) / Interest Expense	4.6x	4.4x	4.6x	5.2x	5.6x
LEVERAGE					
Debt / EBITDA	4.1x	5.4x	4.3x	5.0x	4.4x
Net Debt / EBITDA	4.0x	5.2x	4.2x	4.7x	4.1x
Debt / Book Capitalization	52.8%	55.5%	57.0%	55.6%	55.6%

Source: Moody's Financial Metrics™

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