

Rating object	Rating information	
Electricity Supply Board (ESB) Creditreform ID: 400987939 Incorporation: 11/08/1927 (Main) Industry: Energy generation, transmission and distribution CEO: Pat O'Doherty <u>List of rating objects:</u> Long-term Corporate Issuer Rating: Electricity Supply Board (Group) Long-term Corporate Issuer Rating: ESB Finance DAC Long-term Local Currency Senior Unsecured Issues	Corporate Issuer Rating:	Type:
	A / stable	Initial rating Unsolicited
	LT LC Senior Unsecured Issues:	Other:
	A	n.r.
	Rating Date:	01/10/2018
	Monitoring until:	Withdrawal of the rating
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	Rating methodology:	CRA "Corporate Issuer Ratings" CRA "Non-financial Corporate Issue Ratings" CRA "Government-Related Companies"
	Rating history:	www.creditreform-rating.de

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Abstract

Company

Electricity Supply Board (hereafter referred to as "ESB", "the Group" or "the Company") is a statutory corporation established in 1927 under the Electricity (Supply) Act. The Company owns and operates electricity distribution and transmission networks in the Republic of Ireland ("ROI") and Northern Ireland ("NI"). It also generates and supplies electricity in Ireland (both ROI and NI) and Great Britain ("GB"). While electricity generation and supply are open to full competition, the electricity transmission and distribution are regulated monopolies in ROI, NI and GB. Additional services round off the range of the Company's services. These include the supply of gas, the use of the networks to carry fibre for telecommunications, and the development of a public infrastructure to charge electric vehicles.

The Group controls a power generation portfolio of 5.8 GW, including 4.3 GW in Ireland and 1.3 GW in Britain, and maintains networks in ROI and NI with a total length of more than 229,000 km. The Company's share in the market for power generation across Ireland (ROI and NI) amounts to 42% and 34% on the respective electricity supply market. The Company provides electricity to 1.4 million customers. In 2017, the Group – featuring a workforce of 7,790 employees – generated a total revenue of EUR 3,262 million (2016: EUR 3,247 million) and a loss after tax of EUR -32 million (2016: profit after tax EUR 186 million). In expectation of lower profits in its power generation business following the restructuring of the wholesale electricity market in compliance with EU requirements, the Company recognized a one-off impairment with a volume of EUR 276 million in its power generation capacities as of 31 December 2017. This had a significantly negative impact on the net result.

Rating result

The current rating attests ESB a highly satisfactory level of creditworthiness, which represents a low to medium default risk. ESB has strategic importance for the region and is supported by a solid regulatory framework on both sides of the Irish border (in ROI and NI). Given the fact that the Republic of Ireland owns 95% of the Company's shares and based on our rating methodology for government-related companies, we assume that the Irish government would be willing to support the Company to meet any extraordinary financial shortfall. As a consequence, the rating of ESB is closely linked to the sovereign rating of the Republic of Ireland (CRA: A / positive as of 24 November 2017).

Outlook

The one-year outlook of the rating is stable. We expect a stable development of the Company despite the current low margin environment in the power generation and retail businesses and taking into account the ambitious investment programme in renewables. The credit risk position of the Group could nevertheless deteriorate following the implementation of the Integrated Single Electricity Market (I-SEM) as this may cause further significant pressure on the profit margins and further capacities may not receive supply contracts after capacity auctions. It also remains to be seen what kind of an impact Brexit will have on the operating revenues of the Group.

Rating-relevant factors

Table 1: Financials of ESB Group | Source: ESB Group annual report 2017, standardized by CRA

Excerpts from the financial ratios analysis 2017

- + Slightly increased revenues
- + Reduction of net debt

- Decrease of EBITDA and EBIT
- Decreasing profitability ratios
- Slightly increased ratio of net debt / EBITDA adj.

Financial ratios ¹ extract Basis: consolidated annual report as per 31/12 (IFRS)	CRA standardized figures ¹	
	2016	2017
Revenues	EUR 3,211.8 m	EUR 3,229.0 m
EBITDA	EUR 1,347.2 m	EUR 1,002.5 m
EBIT	EUR 586.8 m	EUR 186.8 m
EAT	EUR 186.2 m	EUR -31.9 m
Total assets	EUR 12,437.1 m	EUR 11,874.3 m
Equity ratio	33.5%	33.4%
Capital lock-up period	49.42 days	43.46 days
Short-term capital lock-up	22.4%	19.7%
Net debt / EBITDA adj.	5.9	5.9
Return on investment	4.6%	1.6%

Suggestion:

General Rating Factors summarize the key issues that – in the view of the analysts as per the date of the rating – have a significant or long-term impact on the rating, positive (+) as well as negative (-).

Current Rating Factors are the key factors that have, in addition to the Underlying Rating Factors, an impact on the current rating.

Prospective Rating Factors are factors and possible events that – in the view of the analysts as per the date of the rating – would most likely have a stabilizing or positive effect (+) and a weakening or negative effect (-) on future ratings, if they occurred. This is not a full list of possible future events with potential relevance for future ratings. Circumstances can arise that are not included in the list of prospective factors whose effects are impossible to assess at the time of the rating, either because these effects are uncertain or because the underlying events are deemed unlikely to occur.

General rating factors

- + Strategic importance of the Company for the region (both ROI and NI)
- + Transparent regulatory framework with guaranteed revenues and predictable cash flows for two thirds of the business
- + Mix of regulated and unregulated business
- + Monopoly status as a sole owner of the transmission and distribution networks
- + Stable ownership with Irish Government as the majority shareholder. It may be assumed extraordinary financial support will be provided by the government if necessary
- + Good access to financial markets

- Price sensitivity and high competition in the power generation and retail businesses
- High capital intensity with ongoing significant investments for maintenance and the development of renewable energies
- Currency risks in connection with NI and GB business
- Generally falling power prices and downward pressure on profit margins
- Restricted independence in decision-making processes due to the strict government control and regulation by independent agencies

Current factors (rating 2018)

- + Slightly decreasing net debt as of 31 December 2017
- + High liquidity reserves

¹ For analytical purposes, CRA adjusted the original values in the financial statements in the context of the financial ratio analysis.

- + Despite of lower margins in the power generation and retail businesses, the Company still managed to generate sufficient levels of EBITDA in 2017
- Low-margin environment in the power generation and supply businesses
- One-off impairment on power generation assets, which had a negative impact on the corporate net result

Prospective rating factors

- + Development of renewable energy sources and of innovative business fields as well as of international consultancy services
- + Growth of the RAB² following further investments in infrastructure
- + Growth potential in GB
- Uncertainties related to the transition to I-SEM
- Uncertainties in connection with Brexit (e.g. financial, currency, tax risks)
- Trend towards renewable energy, requiring investments
- Possible increase in leverage given current investment plan
- Increasingly strict regulatory requirements

Best case scenario

Best case:	A
Worst case:	A-

In our best case scenario for one year, we assume a rating of A. It would be the case if the Company would manage the introduction of the I-SEM and increased capex without breaking the Group's stable balance sheet relations. In the light of the close relationship between ESB and the Irish Government, the rating reflects the sovereign rating of the Republic of Ireland.

Worst case scenario

Note:

The scenarios are based on the information available at the time of the rating. Within the forecast horizon, some circumstances could occur that would lead to a rating change out of the indicated range.

In our worst case scenario for one year, we assume a rating of A-. This might be the case if the profitability of the Group would be significantly affected by additional falls in the margins for its power generation and retail businesses and that the investment plan could therefore only be implemented through further debt, which would deteriorate ESB's key financials.

Business development and outlook

Despite increased competition, the downward pressure on energy prices and non-recurring exceptional charges, the Group delivered an overall satisfactory performance in the financial year 2017. Total revenues slightly increased to EUR 3,229.02 million (2016: EUR 3,247 million), driven by higher revenues in the power generation business. These reflected the first full year of earnings from the Carrington Combined Cycle Gas Turbine (CCGT) in GB and an increase of the regulated income, which were, however, partly offset by a fall in revenues at the divisions Generation and Wholesale Markets and Electric Ireland against a background of lower prices and lower volumes. Furthermore, overall costs were adversely affected by exceptional wages and salaries (EUR 3 million) and exceptional operating and maintenance costs (EUR 9 million) caused by Hurricane Ophelia. The EBITDA and the operational profit before exceptional items fell by EUR 48 million to EUR 1,276 million and by EUR 107 million to EUR 490 million respectively.

The result before taxation was positively influenced by the lower finance costs as a result of the decrease in the outstanding pension liability in relation to the ESB pension scheme and amounted to EUR -9.93 million. The adjusted result before taxation amounted to EUR 262 million (2016: EUR 382 million).

² Regulated Asset Base (RAB) is a valuation of the assets in the transmission and distribution networks, held by ESB Networks (ROI) and NIE Network (NI) respectively, which is performed for regulatory purposes. The carried value of the asset base determines the future regulated income.

The expected continuation of the trend towards lower energy margins in the course of the implementation of the new I-SEM (see also the chapter on business risks) was the main reason for the exceptional non-recurring impairment charge of EUR 276 million on the Company's power generation asset portfolio. This impairment loss affected the net result of the Group, which was negative and amounted to EUR -32 million (2016: EUR 186 million).

Despite the net loss, the Company distributed dividends with a total volume of EUR 60 million in the financial year 2017.

The following table illustrates the business development of individual ESB divisions in 2017:

Table 2: The development of individual corporate divisions in 2017 (before consolidation and eliminations) | Source: ESB Group

EUR million	ESB Networks	NIE Networks	Generation and Wholesale	Electric Ireland	Other Segments*
Revenue	1,058	272	1,406	1,734	297
Operating profit	317	35	(155)	68	(51)
Adj. operating profit**	317	35	121	68	(51)
Profit/loss before taxation	317	(13)	(171)	68	(211)
Capital expenditure	501	143	128	9	86

*other segments include corporate service and innovation divisions

**Adj. operating profit – operating profit before the one-off impairment costs

The ownership and development of transmission and distribution electricity networks in ROI, which had a regulated asset base (RAB) of EUR 7.7 billion as per 31 December 2017 (2016: EUR 7.5 billion), are the main activities of the ESB Networks Division. The development of the Irish electricity networks in the course of new connections and a reduction of carbonisation levels will require significant reinforcement and extensions to existing networks in addition to current maintenance programmes. The operating profit amounted to EUR 317 million, changing little from the previous year's level (2016: EUR 314 million).

NIE Networks – accounting for a total RAB of GBP 1.5 billion in 2017 (2016: GBP 1.4 billion) – is responsible for the transmission and distribution networks in NI. The increase of revenues that reflected higher regulated tariffs and connection incomes was offset by the adverse impact of currency exchange rates and the weakening of sterling. Operating profit (EUR 35 million, 2016: EUR 35 million) and capital expenditure (EUR 143 million, 2016: EUR 141 million) were in line with the results from the previous financial year. The management of the Group is confident of its ability to manage the challenges that will emerge in connection with the new RP6 regulatory price determination and investment programme for NI, which will be in force for the period from October 2017 to March 2024.

The operating profit of the Generation and Wholesale Markets (G&WM) Division decreased by EUR 110 million to EUR 121 million in 2017 (2016: EUR 231 million), primarily due to lower wholesale energy margins in both Ireland and GB. In addition, the plant availability rate fell from the high levels of previous years (96% in 2016) to 90 %, affecting revenues accordingly. The upcoming introduction of the I-SEM is first and foremost expected to have an immediate, negative impact on the development of the G&WM division as it should affect energy margins and exert significant downward pressures on revenues. It is this assessment that has led to a total impairment charge of EUR 276 million in this business segment in 2017, comprising EUR 263 million for thermal assets and EUR 13 million for renewable assets. The capital expenditure in 2017 fell by EUR 134 million from the previous year's level (2016: EUR 262 million), partly as a consequence of delivery delays for a few onshore projects, partly because capex in 2016 had been exceptionally high (for the completion of Carrington and a major plant overhaul). Future investments will focus on the development of renewables and on the reinforcement of the existing power plants in order to reduce the carbon intensity of the portfolio.

ESB's Retail Division, supplying customers with electricity and gas, experienced a EUR 0.2 billion decrease in revenues to EUR 1.7 billion and a EUR 4 billion fall in its operating profit to EUR 68 million, reflecting the 2017 fall in its share of the Irish market (NI and ROI) to 34% (from 37%). The consequences of this fall were further aggravated by the impact of reduced unit rates for residential

electricity and gas customers. According to the ESB management, the operating environment in Ireland is highly competitive, following the market entry of many new electricity suppliers over recent years, and characterized by high levels of customer switching. The Division's strategy is focused on the optimization of operating costs and on the preservation of its market share through the implementation of a customer retention programme, which includes mechanisms for rewarding customer loyalty.

According to the interim financial report as per 30 June 2018, the Company's revenue for the first six months of the year has increased (year-on-year) by 4.9% to EUR 1,762.5 million (30 June 2017: EUR 1,678.8 million) while the operating profit of EUR 244.4 million is EUR 53 million (17.6%) down from the previous year's level. This fall in the operating profit has mainly been caused by a general deterioration of the margins and market spreads as well as higher operating costs (including impairments) in the divisions Generation and Wholesale Markets and Electric Ireland. The development of the divisions that are subject to regulation largely followed the previous year's trends.

In line with the overall national target of generating 40% of its electricity needs from renewable sources, the Group's strategy is focused on developing the electricity networks for these purposes as well as on increasing its own share of renewables and ensuring a reliable supply of affordable low-carbon energy. In order to implement the strategic goals and to ensure the transition to low-carbon energy generation, the Group expects to invest an average of roughly EUR 1 billion per year. The Company's long-term Strategy 2030 proposes to maintain the mix of regulated and unregulated businesses while developing future-oriented product ranges such as international engineering consultancy, e-transport & e-Heat, telecoms (cooperation with Vodafone in fibre-to-the-building technology) and smart energy services. A further increase of the market share in GB, now that the Company has entered the GB residential supply market, is expected to generate substantial growth opportunities. The dividend policy sets a target of 40% of adjusted profit after tax for each year after 2017.

Considering the strong market position of ESB, its monopoly status as the sole owner of the Irish electricity network and its significant market shares in the Irish power generation and retail industries, we believe that ESB will meet its growth targets over the medium to long term. Two thirds of the Group's revenues are derived from fairly predictable and stable cash flows that are generated from regulated business activities. In addition, ESB benefits from easy access to the capital market.

Structural risks

Electricity Supply Board was established on 11 August 1927 under the Electricity (Supply) Act 1927 as a statutory corporation with perpetual succession. The Company is the sole owner of the electricity transmission and distribution networks in ROI and in NI. The main shareholder of the Company (owning 95% of shares) is the Government of Ireland, with the Minister for Public Expenditure and Reform holding 85% of issued capital stock and the Minister for Communication, Climate Action and Environment holding 10%. The remaining shares are held by the Company's employees through the Trustee of the ESB Employee Scheme Ownership Plan (ESOP).

There are currently 12 members on the board of ESB. Eight of them are appointed by the Irish Government for terms of up to five years. Four members are ESB staff members who are appointed by the Minister for Communication, Climate Action and Environment for a four-year term.

As per 31 December 2017, the Group comprised 8 direct and 92 indirect subsidiaries as well as a range of other participations (joint ventures, associate undertakings).

The Group's operating activities are organized into four key segments / strategic divisions, which are managed separately and described as follows:

- Electric Ireland is a supplier of electricity and gas to domestic and non-domestic customers in ROI and NI. In 2017, the Group established the ESB Energy International Ltd. and entered the Great Britain (GB) domestic market.
- ESB Networks concentrates mainly on the ownership and operation of the electricity transmission and distribution networks in the ROI. The division is a regulated business earning an allowed return on its Regulated Asset Base (RAB) through use of system charges payable by electricity generators and suppliers.
- ESB Generation and Wholesale Markets operates power stations and wind farms in ROI, NI and GB.

- NIE Networks owns and operates the electricity transmission and distribution network in NI. The earnings originate from the charges for the use of the networks paid by the electricity suppliers or collected by the System Operator for Northern Ireland (SONI).

A separate division, Innovation, identifies, coordinates and develops new investment opportunities.

In addition to these operating divisions, the Group's structure comprises another three corporate divisions, which provide support and other services to other members of the Group. These divisions account for most of the Group's finance costs, as the majority of treasury activities are conducted centrally and the costs are not assigned or recharged to other segments.

The Company has a RAB with a total value of approximately 9.4 billion EUR, comprising the value of the ROI distribution and transmission network (EUR 7.7 billion) and the value of the NI network (GBP 1.5 billion). The Commission for Regulation of Utilities (CRU) and the Northern Ireland Authority for Utility Regulation (NIAUR) are the independent regulators of the energy markets in ROI and NI respectively. CRU has awarded ESB licenses as Distribution Asset Owner ("DAO") and Transmission Asset Owner ("TAO"). Transmission system operation in ROI is the responsibility of EirGrid, a separate Irish state-owned company. The collaboration between ESB as TAO and EirGrid is regulated in an agreement between the two entities, which has to be approved by CRU. Northern Ireland Electricity Ltd., a wholly owned subsidiary of ESB, may, according to a license issued by NIAUR and according to a price mechanism determined by NIAUR, generate earnings from its transmission system and distribution system assets in NI. The electricity transmission network in NI is operated by System Operator for Northern Ireland (SONI) in cooperation with EirGrid. Thus, in ROI and NI, ESB is a Distribution System Operator ("DSO") while third-party companies act as Transmission System Operators ("TSO") in both regions. Every five years, transmission revenue reviews are carried out by CRU in ROI and by NIAUR in NI for both the TAOs and TSOs. The tariffs have to be adjusted on an annual basis. The distribution contracts between ESB's DAO and DSO subsidiaries are also subject to approval by CRU and NIAUR.

Given the systemic relevance of the Company as the owner of the national transmission network as well as the owner and operator of the national distribution network and bearing in mind the government's role as the Company's majority shareholder, no core risks can in our opinion be associated with the structure of the Company or with the organizational structure of the Group. The power generation and retail businesses are subject to market structure risks, which are described in the chapter on business risks.

The close association of ESB with the Government of the Republic of Ireland has a positive impact on our assessment of the Company.

Business risks

The business activities of ESB are subject to strong regulations in all relevant markets at both the national and the European level (EU). The Group, in order to keep its licenses, must ensure that its structure, procedures, management and employees comply with strict requirements that have been set by supervisory authorities. Any changes to the Company's environmental, regulatory and policy framework, to price control and market mechanisms could adversely affect the financial position of the Group.

According to the EU legislation for the harmonization of cross-border trading of wholesale electricity and natural gas, the existing all-Ireland Single Electricity Market (SEM) was redesigned into an Integrated Single Electricity Market (I-SEM). The target model includes a new capacity remuneration mechanism that complies with latest EU state aid guidelines. The new mechanism introduces an element of competition for capacity contracts and imposes reliability penalties on the holders of the contracts if they are unable to deliver the agreed levels of capacity. Generally, significant market and revenue changes in the power generation business are expected following the introduction of the I-SEM. Total revenues from power generation are expected to decrease. However, the Company anticipates higher revenues from ancillary services that are required to support a robust electricity system with more renewable energy.

As more than two thirds of the Company's EBITDA from operating activities and assets are generated by cash flows from regulated and transparent and well-predictable business activities, which are

closely coordinated with the Irish Government and independent regulators, we do not expect any severe consequences for ESB's overall business after the introduction of the I-SEM in Ireland.

In its capacity as the majority shareholder and as the entity which is responsible for the country's energy policy and energy affairs, the Government of Ireland has direct control over the Group's strategy, business operations, capital structure as well as its capital and environmental policies. According to Irish law, ESB has to obtain the consent of different ministers for particular commercial transactions. Political risks can therefore not be ruled out.

The overall business of ESB is dependent on electricity consumption. The main business risks therefore include a fall in the overall level of business activities, weather conditions and price fluctuations on the wholesale markets for certain commodities (electricity, carbon, oil, natural gas and CO2 emission permits). In recent years, power prices and fuel prices paid by ESB in connection with energy generation activities have continued to experience volatility, putting pressure on ESB's cash flows and on the industry as a whole. Furthermore, the upcoming transition towards renewable energy sources will present another considerable challenge for the Company alongside the introduction of the I-SEM.

The industry is highly capital intensive as the equipment generally requires continuous investments with a combination of high fixed costs and high investments in the network reinforcement to allow for an increased use of renewable energy sources. ESB is facing a period of significant capital investment requirements for its networks of power generation and wholesale business. The capital expenditure programmes are agreed with the respective regulators in ROI and NI.

We believe that the Company is overall subject to low-to-moderate business risks as it is one of the leading energy producers in Ireland and as it operates for the most part in a regulated environment, in close coordination and cooperation with the Irish Government and authorities in all relevant markets. ESB's business mix is well diversified and covers the entire value-added chain of the electricity market, from power generation to the sale of electricity and gas to end customers through transmission and distribution networks. As far as we can assess, the Group operates a well-developed and constantly evolving business risk management system, in line with current market and regulatory requirements and supported by many years of experience in the industry.

Financial risks

CRA adjusted the original values in the financial statements for the purposes of the financial ratio analysis. Contrary to our normal practice, we deducted the goodwill shown on the balance sheet from the equity only by 50%, suggesting a certain recoverability of the goodwill. The following descriptions and indicators are based solely on these adjustments.

We hold the view that the capital structure of the Company is stable and well-balanced with an adjusted equity ratio of 33.4% as per 31 December 2017 and the long-term character of most obligations. Long-term and medium-term liabilities accounted for 71% of total liabilities (EUR 5,602.4 million out of EUR 7,903.4 million) as per 31 December 2017. According to the interim financial report as per 30 June 2018, outstanding debt had a weighted average duration of approximately seven years. Most of the Company's assets are fixed assets (84%), reflecting the specific conditions of the business and emphasising the importance and high level of investments in the development and maintenance of network and power generation assets. The asset coverage ratio of 72% as per 31 December 2017 was satisfactory in our view, given the Group's high degree of fixed assets intensity.

We believe that the Group benefits from a stable liquidity position. The main business of ESB as an owner of the Irish electricity networks ensures a reliable, highly predictable and stable cash flows from a strictly regulated business. These cash flows are supported by income from power generation and retail with a widely diversified customer portfolio. The Group has good relationships with the banking sector and disposes of sufficient credit facilities that can be used either for investments or to cover any current liquidity needs. In 2017, the revolving credit facility with a total volume of EUR 1.4 billion provided by 14 banks, was extended until January 2022. The facility had not been used as of 31 December 2017 and – together with the cash balance of EUR 380 million – represents the Group's main liquidity reserve. The Group disposes of an EMTN Programme with a maximum total value of EUR 5 billion and issued a senior bond in 2017 with a total volume of EUR 500 million, a 12-year term and a coupon of 1.75%. The proceeds were mainly used to repay the debt that was maturing later in 2017. The total outstanding volume of bonds issued under the EMTN Programme by ESB

and its subsidiary ESB Finance DAC amounts to EUR 2,965 million. Up to an additional EUR 100 million are available through a bank investment loan from the European Investment Bank. Current financial liabilities also include loans and bonds used for investments in Carrington and the acquisition of NIE Networks, as well as a number of private placements. Private placement liabilities and some other facilities include covenants in connection with asset structure and interest cover. According to the 2017 annual report, all the covenants were met. Due to the low interest rate for the 2017 bond issue, the weighted average interest rate on Group borrowings has fallen to 3.9% as per 31 December 2017 (31 December 2016: 4.3%).

ESB is exposed to risks of changes in interest rates, currency exchange rates and commodity prices. The Group therefore uses derivative financial instruments to mitigate the potential impact of those changes on its performance. Investments in the UK (GB and NI) are mostly funded by debt in sterling. As of 31 December 2017 64% of corporate debt is denominated in EUR, 36% in GBP.

Taking into consideration the Group's liquidity of EUR 1.9 billion (comprising cash balance and undrawn committed credit facilities) as of 31 December 2017, last year's EBITDA of approximately EUR 1,300 million and the current financial debt obligations as well as the Group's investment plan (up to EUR 1 billion capex per year), we expect that the financing needs of the Company will be covered by its liquidity reserves and cash flows, at least in the short term. We have equally failed to discover any substantial risks for the implementation of ESB's investment and growth plans or for the Company's compliance with its financial obligations in the medium term, taking into account its debt maturity profile, its ease of access to the capital market and its stable and mostly predictable cash flows.

Issuer / issue rating details

Issuer rating of ESB Finance DAC

ESB Finance DAC ("the Issuer") is a wholly owned direct subsidiary of ESB, which was incorporated in Ireland on 26 January 2010 under the company number 480184. The Issuer's principal business activity is to act as a general financing vehicle for the Group. It conducts fundraising activities in order to lend their proceeds or make them otherwise available to other members of the Group. As a wholly-owned subsidiary of ESB, the Issuer is dependent on the performance of the Group and the ability of its members to generate sufficient income to satisfy its payment obligations to other capital market participants. The Issuer's financial statements are fully consolidated in the financial statements of the Group. For this reasons, we derive the rating of ESB Finance DAC from the unsolicited corporate issuer rating of ESB, e.g. A with stable outlook.

Issue rating

This issue rating is exclusively valid for the long-term senior unsecured issues denominated in Euro, issued by ESB Finance DAC, which are included in the list of ECB-eligible marketable assets. The ECB list of eligible marketable assets can be found on the website of the ECB.

The Notes have been issued within the framework of the EMTN Programme, initiated by ESB in 2010. Following the prospectus as of 30 June 2017, the issues are unconditionally and irrevocably guaranteed by ESB. The current EMTN Programme has a maximum volume of EUR 5 billion. The Notes issued under the EMTN Programme benefit from a negative pledge provision and a cross-default mechanism. The terms of the EMTN Programme also provide the noteholders with the option of redeeming their Notes prematurely in the event of a change of control.

We have provided the EUR debt securities, issued by ESB Finance DAC, with a rating of A. The decision is mainly based on the corporate rating of ESB Group and takes into account the specific credit enhancement of the issue, namely the irrevocable and unconditional guarantee from ESB. Other types of debt instruments or issues denominated in other currencies have not been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Overview

Table 3: Summary of CRA Ratings | Source: CRA

Ratingobjekte	Details Information	
	Date	Rating
Electricity Supply Board (issuer)	01/10/2018	A / stable
ESB Finance DAC (issuer)	01/10/2018	A / stable
Long-Term Local Currency Senior Unsecured Issues	01/10/2018	A
Other	--	n.r.

Table 4: Overview of ESB EMTN Programme | Source: ESB, prospectus dated 30 June 2017

Issue Details			
Volume	EUR 5,000,000,000	Maturity	Depending on the respective bond
Issuer	ESB ESB Finance DAC	Coupon	Depending on the respective bond
Arrangers	NatWest Markets	Currency	Depending on the respective bond
Credit Enhancement	Guaranteed by ESB	ISIN	Depending on the respective bond

At the time of the rating, the following EUR-denominated Notes have been rated by Creditreform Rating AG:

Table 5: Overview of the issues of the ESB EMTN Programme | Source: Website of ESB and CRA's own presentation

ISIN	EUR	Issue Date	Maturity Date	Unsolicited Rating
XS1239586594	500,000,000	05/06/2015	08/06/2027	A
XS1560853670	500,000,000	07/02/2017	07/02/2029	A
XS1428782160	600,000,000	14/06/2016	14/06/2031	A

All future LT LC senior unsecured Notes that will be issued by ESB or ESB Finance DAC under the current EMTN Programme, denominated in Euro and included in the list of ECB-eligible marketable assets will, until further notice, receive the same ratings as the current LT LC senior unsecured Notes issued under the EMTN Programme. Notes issued under the Programme in another currency than Euro or other types of debt instruments have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Financial ratios analysis

Table 6: Financial ratios of ESB Group | Source: ESB Group, standardized by CRA

Asset Structure	2015	2016	2017
Fixed asset intensity (%)	88,75	87,49	87,25
Asset turnover	0,28	0,27	0,28
Asset coverage ratio (%)	66,71	72,04	73,28
Liquid funds to total assets (%)	1,05	2,92	3,20
Capital Structure			
Equity ratio (%)	33,03	33,48	33,44
Short-term-debt ratio (%)	17,01	18,21	19,38
Long-term-debt ratio (%)	26,18	29,55	30,49
Capital lock-up period (in days)	38,38	49,42	43,46
Trade-accounts-payable ratio (%)	2,75	3,50	3,24
Short-term capital lock-up (%)	21,83	22,35	19,72
Gearing	2,00	1,90	1,89
Leverage	3,00	3,01	2,99
Financial Stability			
Cash flow margin (%)	25,02	25,76	15,15
Cash flow ROI (%)	6,91	7,07	4,39
Debt / EBITDA adj.	6,23	6,12	6,17
Net-Debt / EBITDA adj.	6,13	5,85	5,88
ROCE (%)	6,83	6,80	5,57
Debt repayment period	10,20	8,54	13,36
Profitability			
Gross profit margin (%)	73,11	78,25	76,89
EBIT interest coverage	2,13	1,48	0,84
EBITDA interest coverage	5,15	3,39	4,51
Ratio of personnel costs to total costs (%)	17,89	19,49	19,67
Ratio of material costs to total costs (%)	30,86	26,37	27,81
Return on investment (%)	3,93	4,62	1,55
Return on equity (%)	6,80	4,44	-0,78
Net profit margin (%)	8,12	5,45	-0,93
Operating margin (%)	14,86	17,19	5,43
Liquidity			
Cash ratio (%)	6,17	16,05	16,53
Quick ratio (%)	48,70	54,22	53,56
Current ratio (%)	66,11	68,66	65,81

Appendix

Rating history

Corporate issuer rating of Electricity Supply Board

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	01/10/2018	22/10/2018	Withdrawal of the rating	A / stable

Corporate issuer Rating of ESB Finance DAC

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	01/10/2018	22/10/2018	Withdrawal of the rating	A/ stable

Rating der LT LC senior unsecured issues of ESB Finance DAC

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	01/10/2018	22/10/2018	Withdrawal of the rating	A

Regulatory requirements

The present rating is an unsolicited rating. Creditreform Rating AG was not commissioned by the Issuer with the preparation of the rating. The present analysis was prepared on a voluntary basis.

The rating is based on the analysis of published information and on internal evaluation factors. The quantitative analysis is primarily based on the last annual report of the Issuer, the basis prospectuses and on press releases of the company. The information and documents meet the requirements and are in accordance with the published Creditreform Rating AG's rating methodology.

The rating was conducted on the basis of Creditreform Rating's "Corporate Issue Ratings" methodology and the "Corporate Issuer Rating" methodology. A complete description of Creditreform Rating's rating methodologies is published on the following internet page: www.creditreform-rating.de.

The documents submitted and information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodology. A complete description of Creditreform Rating's rating methodologies and Creditreform's basic document "Rating Criteria and Definitions" is published on the following internet page:

www.creditreform-rating.de/en/regulatory-requirements/

This rating was carried out by analysts Elena Alexeenco (e.alexenco@creditreform-rating.de) and Natallia Berthold (n.berthold@creditreform-rating.de), both located in Neuss, Germany. A management meeting did not take place.

The rating was presented to the rating committee on 1 October 2018. The company examined the rating report prior to publication and was given at least one full working day to appeal the rating committee's decision and to provide additional information. The rating decision was not amended following this examination.

The rating will be monitored until CRA removes the rating and sets it to non-rated (n.r.).

In 2011 Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG (CRA) is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

Please note:

This report exists in an English version only. This is the only binding version.

Conflict of interests

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly in-volved in credit rating activities or in approving credit ratings and rating outlooks.

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The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our 'Rating Committee' policy, all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, CRA has used following substantially material sources:

Corporate Issuer rating:

1. Annual report
2. Website
3. Internet research

Corporate Issue rating:

1. Issuer corporate rating incl. information used for the Issuer corporate rating
2. Documents on issues / instruments

There are no other attributes and limitations of the credit rating or rating outlook other than those displayed on the CRA website. Furthermore, CRA considers as satisfactory the quality and extent of information available on the rated entity. With respect to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the time of disclosure of the credit rating to the rated entity and the public disclosure, no amendments were made to the credit rating.

The 'Basic Data' information card indicates the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating report and indicates how the different methodologies or other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings and best-case scenario credit ratings are explained.

The date at which the credit rating was initially released for distribution and the date when it was last updated, including any rating outlooks, is indicated clearly and prominently in the 'Basic Data' card as a "rating action"; initial release is indicated as "initial rating", other updates are indicated as an "update", "upgrade" or "downgrade", "not rated", "confirmed", "selective default" or "default".

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