Creditreform Corporate Issuer / Issue Rating

Electricity Supply Board

Creditreform Rating

Rating object	Rating information	
Electricity Supply Board Creditreform ID: 400987939 Incorporation: 11.08.1927 Main (Industry): Energy generation, transmission and distribution CEO: Pat O'Doherty	Corporate Issuer Rating: **A / stable**	Type: Update Unsolicited Public rating
	LT LC Senior Unsecured Issues,: **A / stable**	Other: **n.r.**
Rating objects: Long-term Corporate Issuer Rating: Electricity Supply Board Long-term Corporate Issuer Rating: ESB Finance DAC Long-term Local Currency (LT LC) Senior Unsecured Issues	Rating date: 12 July 2021 Monitoring until: withdrawal of the rating Rating methodology: CRA "Corporate Ratings" CRA "Non-Financial Corporate Issue Ratings" CRA "Government Related Companies" CRA "Rating Criteria and Definitions" Rating history: www.creditreform-rating.de	

Content

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Summary

Company

Electricity Supply Board (hereafter also referred to as 'ESB' or 'the Company') is a statutory corporation established in 1927 under the Electricity (Supply) Act and is 96.1% owned by the Government of the Republic of Ireland. 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 fiber for telecommunications, and the development of a public infrastructure to charge electric vehicles.

The Group controls a power generation portfolio of 5,530 MW across the Integrated Single Electricity Market (I-SEM) and GB, with a further 224 MW under construction, 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 29% and to 34% and 43% on the respective electricity supply and system services market. The Company provides electricity, gas and energy services to approximately 1.4 million customers across Ireland. In 2020, the Group – with a workforce of 7,938 employees – generated a total revenue of EUR 3,731.4 million (2019: EUR 3,709.5 million) and a profit after tax of EUR 125.8 million (2019: EUR 337.8 million).

Rating result

The current rating attests ESB a high level of creditworthiness, representing a low default risk. The rating is based on a solid result of the key financial ratios analysis for the 2020 financial year - despite increased exceptional charges - as well as a stable revenue base, around two-thirds of which stems from the Company's regulated activities. ESB is of 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 96% of the Company's shares, we assume that the Irish Government would be willing to provide ESB with sufficient financial support, e.g. in the event of a crisis, which we have taken into account as favorable in the rating result, based on our rating methodology for government-related companies. The corporate issuer rating of ESB is one notch below the sovereign rating of the Republic of Ireland (CRA: A+ / stable as of 21 October 2020). The difference to the sovereign rating is mainly explained by the remaining and future growing share of revenue from the Company's non-regulated business, as well as the absence of unconditional and irrevocable guarantees on the part of the owner.

Outlook

The one-year outlook of the rating is stable. This assessment takes into account the fact that, in 2020, ESB managed to largely offset the pandemic and economic effects (which were most recently responsible for the negative outlook), and reported overall stable business performance and a stable development of the key financial ratios analysis. The final determination for Price Review 5 (PR5) for the period 2021-2025, which includes a significantly expanded investment programme related to Ireland's climate targets, also has a stabilizing effect. We continue to assume that the stability, predictability and support offered by the regulatory framework - which is required in order to finance investments – will continue, without leading to a significant change in leverage in the course of the next year (2021/2022).

Reference:

The relevant rating factors (key drivers) mentioned in this section are predominantly based on internal analyses, evaluations of the rating process, the derived valuations of the analysts participating in the rating and, if applicable, other rating committee members. The fundamental external sources used are specified in the section "Regulatory requirements" and "Rules on the presentation of credit ratings and rating outlooks".

Excerpts from the financial key figures analysis 2020:

+ Increased revenues
+ Solid cash flows from operating activities

+ Reduction of net debt

- Decrease of EBITDA, EBIT and EAT
- Low level of EBIT interest coverage
- Decreasing profitability ratios

General rating factors summarize the key issues that – according to the analysts as of the date of the rating – have a significant or long-term impact on the rating, whether positive (+) or negative (-).

Relevant rating factors

Table 1: Financials of ESB Group I Source: ESB Group annual report 2020, standardized by CRA

ESB Selected key figures of the financial statement analysis Basis: Consolidated Financial Statements of 31.12. (IRFS)	CRA standardized figures[1]	
	2019	2020
Revenue (million EUR)	3,709.50	3,731.40
EBITDA (million EUR)	1,392.5	1,174.7
EBIT (million EUR)	586.30	368.00
EAT (million EUR)	337.80	125.80
EAT after transfer (million EUR)	341.90	129.80
Total assets (million EUR)	13,736.25	13,543.60
Equity ratio (%)	30.0	30.1
Capital lock-up period (days)	24.8	22.3
Short-term capital lock-up (%)	30.6	20.6
Net total debt / EBITDA adj. (Factor)	6.6	6.7
Ratio of interest expenses to total debt (%)	1.9	2.1
Return on investment (%)	3.8	2.4

General rating factors

+ Strategic importance for the region (both ROI and NI)
+ Monopoly status as sole owner of the transmission and distribution networks
+ Transparent regulatory framework with guaranteed revenues and predictable cash flows for two-thirds of the business

[1] For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. For example, when calculating the analytical equity ratio, deferred tax assets, goodwill (entirely or partly), and internally generated intangible assets are subtracted from the original equity, whilst deferred tax liabilities are added. Net total debt considers all balance sheet liabilities. Therefore, the key financial figures shown often deviate from the original values of the Company.

+ Mix of regulated and unregulated business
+ Stable ownership with Irish Government as the majority shareholder
+ 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
– Generally falling power prices putting downward pressure on profit margins
– Restricted independence in decision-making processes due to strict regulatory stipulations

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

Current rating factors

+ On the whole, a stable business development in 2020 despite the COVID-19 pandemic
+ Stable regulatory framework through PR5 determination for the period 2021-2025
+ High degree of internal financing capability in connection with solid liquidity reserves

– One-off impairment on power generation assets due to lower projected future thermal margins and captured spreads as well as a special burden due to changes in the disposal costs of wooden poles treated with creosote
– Increase in planned investments

Prospective rating factors are factors and possible events which – according to the analysts as of the date of the rating – would most likely have a stabilizing or positive effect (+) or a weakening or negative effect (-) on future ratings if they occurred. This is not an exhaustive 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.

Prospective rating factors

+ Development of renewable energy sources and of innovative business fields
+ Growth of the RAB following further investments in infrastructure
+ Growth potential in GB

– Trend towards renewable energy, requiring investments
– Possible leverage increase given current investment plan
– Increasingly strict regulatory requirements
– Uncertainty related to Brexit (e.g. financial, currency, tax risks) and the further development of the pandemic

ESG factors are factors related to environment, social issues, and governance. For more information, please see the "Regulatory requirements" section. CRA generally takes ESG-relevant factors into account when assessing the rating object, and discloses them when they have a significant influence on the creditworthiness of the rating object, leading to a change in the rating result or the outlook.

ESG-factors

CRA generally considers ESG factors (environment, social and governance) within its rating decisions. In the case of ESB, we have not identified any ESG factor with significant influence.

However, we view the ESB's Brighter Future Strategy, which is in line with the Irish Government's Climate Action Plan, as favorable. The Government's programme has committed to an annual average reduction of 7% in total greenhouse gas emissions from 2021 to 2030, equivalent to a 51% reduction. Net zero emissions are to be achieved by 2050. As a result of this Action Plan, we expect increasing investments at ESB to achieve the national goals of decarbonization of electricity, expansion of smart grids, and electric heat and transport, with long-term adequate compensation induced by the regulatory framework.

By virtue of the closure of its peat-fired power stations, ESB's CO_2 intensity fell sharply from 406 g/kWh to 378 g/kWh in 2020 compared to 2019. This corresponds to a reduction of 44% compared to 2005. By 2030, the CO_2 intensity is to be reduced to 200 g/kWh. Within the framework of RESS, ESB was able to obtain bids for an 82 MW onshore wind joint venture project, and two ground-mounted PV projects with a total installed capacity of 36 MW. RESS is a Government programme promoting renewable energy investments in Ireland. The programme favors the achievement of targets in the field of renewable energies both at national and EU level.

We believe that ESB is well-positioned to address the challenges associated with these objectives. Moreover, we think that ESB will play a central role in Irish climate and transport policy in the future. We therefore believe that the energy transition can be a key growth driver for the Company's performance in the long term. In this context, the business model is to be assessed as future-oriented.

A general valid description of Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found here.

Best-case scenario: A

Please note:

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

In our best-case scenario for one year, we assume a rating of A. This would be the case if the Company were to manage the implementation of its strategy - which involves increasing capex - without breaking the Group's stable balance sheet ratios. In the light of the close relationship between ESB and the Irish Government, the rating reflects the sovereign rating of the Republic of Ireland, as we also assume a stable sovereign rating for the Republic of Ireland.

Worst-case scenario: A-

In our worst-case scenario for one year, we assume a corporate issuer rating of A-. It is assumed here that the planned investments are in part financed by further indebtedness, which has an adverse effect on the Group's financials and causes a deterioration in ESB Group's financial key figures. Another significant upward adjustment in the investment plan could also have a detrimental effect on the Group's rating or outlook.

Business development and outlook

In the 2020 financial year, the ESB Group generated revenue of EUR 3,731.4 million (2019: EUR 3,709.5 million) and an EBIT of EUR 368.0 million (2019: EUR 586.3 million), with a total of 7,938 employees. The Company was thus able to achieve a slight revenue growth of 0.6%, but took a decline in the operating result of 37.2% compared to the previous year. The Group's EAT also decreased, and was 62.8% lower than the previous year at EUR 125.8 million (2019: EUR 337.8 million). In addition to higher sales in its Customer Solutions division, higher tariffs in the regulated network business - which were partially offset by lower sales in Generation and Trading - were decisive for the increase in revenue. Increased extraordinary expenses in 2020 were one of the main reasons for the Group's declining EBIT development. This included an impairment of EUR 187.6 million on the Carrington gas-fired power plant in the UK due to lower projected future thermal margins and captured spreads as a result of a reduction in expected demand and lower forecast peak prices. Moreover, the special charge of EUR 59.7 million as a result of an increase in the obligation to decommission plants for the creosote-treated wooden poles also had a negative effect. The net financial result improved slightly from EUR -189.1 million to EUR -182.4 million. In addition to a higher investment result, the optimization of the Company's debt structure and cost of capital were decisive for this.

The following table illustrates the business development of individual ESB divisions in 2020:

Table 2: The development of individual corporate divisions in 2020 (before consolidation and eliminations) I Source: ESB Group

EUR million	ESB Networks	NIE Networks	Generation & Trading	Customer Solutions	Other Segments*
Revenue	1,232	337	1,346	2,172	329
Operating profit/loss	368	85	108	58	-3
Operating profit/loss - including exceptional items	308	85	-80	58	-3
Profit/loss before taxation	306	43	-97	57	-124
Capital expenditure	749	140	121	27	78

*other segments include engineering and major projects as well as enterprise services

The ownership and development of transmission and distribution electricity networks in ROI, which had a regulated asset base (RAB) of EUR 8.4 billion as of 31 December 2020 (2019: EUR 8.1 billion), are the main activities of the ESB Networks division. The expansion of Ireland's electricity networks in the course new connections and a reduction in carbonization levels as part of Ireland's climate change targets will require significant reinforcement and expansion of existing networks and an ambitious investment programme, in addition to ongoing maintenance. A programme of distribution and transmission work has been agreed between ESB Networks and the CRU for the next regulatory price control period (PR5), setting out allowable costs and revenues for the five-year period from January 2021. To facilitate the transition to a low-carbon system without compromising security of supply, PR5 provides strong incentives to the ESB Networks. In addition, PR5 includes an Agile Investment Framework that takes into account changing power network and electricity market requirements. In 2020, ESB Networks connected 131 MW of renewable wind generation. The capacity of the network was further expanded through completed projects such as the 220 kV Castlebaggot and Belcamp stations, the 110 kV Darndale station and the 220 kV Kilpaddoge-Killonan electrical circuit. Due to an increase in the provision for asset retirement obligations, an exceptional charge of EUR 59 million was recognized in the 2020 financial year. The operating result amounted to EUR 368 million, an increase of 6.5% compared to the previous year (2019: EUR 344 million). Due to the intensified installation of smart meters, as well as the replacement and expansion of the distribution network, investments increased by EUR 168 million to EUR 749 million (2019: EUR 581 million).

NIE Networks - with a total investment of GBP 1.6 billion in 2020 (2019: GBP1.6 billion) - is responsible for the transmission and distribution networks in NI. By connecting approximately 1.7 GW of renewable capacity to the network, NIE Networks has contributed to over 40% of electricity consumption in NI coming from renewable sources in 2019. The trend is expected to continue with the further connection of 0.3 GW by 2022. Against the background of the higher regulated tariffs, the operating result increased from EUR 61 million to EUR 85 million in 2020. As a result of the impact of COVID-19, investments fell slightly by EUR 14 million to EUR 140 million (2019: EUR 154 million).

The Generation and Trading (GT) business unit operates a number of generation facilities in ROI and the UK, including wind, hydro and heating, and engages in associated trading activities. As part of the transformation to carbon neutrality, the Company intends to convert its thermal generation to clean energy over the next few years. ESB plans to obtain 50% of its electricity production from renewable energy by 2030. In line with this plan, the 114 MW Grousemount Wind Farm was commissioned in July 2020. In addition, ESB acquired 50% of the shares in Inch

Cape, a 1,080 MW offshore wind farm development project off the east coast of Scotland. Furthermore, the acquisition of a solar development pipeline from Terrasolar and Harmony Solar secured a total development portfolio of 930 MW. Apart from that, Lough Ree Power and West Offaly Power, the peat-fired power plants, were closed at the end of 2020. GT operating profit decreased by EUR 90 million to EUR 108 million in 2020 (2019: EUR 198 million), mainly due to lower wholesale margins and certain gas contracts in 2019. Reduced electricity demand due to the COVID-19 pandemic, as well as lower day-ahead electricity prices and lower peak prices in combination with increased renewable generation, led to a reduction in margins for GB-thermal energy. As a result, an impairment of EUR 188 million was recognized on the Carrington (UK) gas-fired power plant, reflecting a decrease in expected demand and lower forecast peak prices. Carrington's forecasted thermal margins are still expected to decline. Capital expenditure fell by EUR 303 million to EUR 121 million in 2020 compared to the previous year (2019: EUR 424 million). The decrease mainly reflects ESB's significant investments in the Neart na Gaoithe offshore wind project in the UK and the construction programme for the Grousemount wind farm in 2019. In 2020, investments were mainly made in the expansion of renewable energies and in the reinforcement of existing power plants.

ESB's Customer Solutions, which mainly comprises the Group's customer-facing businesses in Ireland and the UK, saw revenues grow by EUR 0.1 billion to EUR 2.2 billion (2019: EUR 2.1 billion). Increased volumes from major energy users, higher revenues in the SES businesses, and customer growth in GB Energy made a major contribution to this. During the COVID-19 pandemic, the Company took a number of proactive measures to ensure smooth energy service. In addition, several initiatives were offered to support customers with payment difficulties. Initially, the COVID crisis had a negative impact on demand in the SME sector, but was offset by increased demand for residential properties. The provisions for bad debts also increased as a result of the crisis, but lower operating costs had an offsetting effect, so that ultimately the business unit's operating result of EUR 58 million was roughly on a par with the previous year (2019: EUR 59 million).

The ESB's Brighter Future Strategy is fully aligned with the Government of Ireland's Climate Change Plan. The Government's programme aims to meet 70% of electricity demand from renewables by 2023, including the electrification of domestic heating and transport; CO2 neutrality is to be achieved by 2050. In line with the national target, the Group is focusing on improving its generation facilities and increasing its share of renewable energies such as offshore wind, solar, ocean, biomass, hydrogen and batteries to replace existing coal and peat-fired electricity generation, without impairing the security of supply. The integration of new technologies and improvement of the operation and efficiency of the power network will make it easier to connect additional renewable generation capacity. In order to implement the strategic goals and ensure the transition to low-carbon energy generation, the Group expects an average investment of roughly 1 billion euros per year. The dividend policy provides for an annual dividend of 40% of adjusted profit after tax.

Given ESB's strong market position, 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 achieve 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 generated from regulated business activities. In addition, ESB benefits from easy access to the capital market.

Structural risk

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 96.1% of shares) is the Government of Ireland, with the Minister for Public Expenditure and Reform holding 86.0% of issued capital stock and the Minister for Environment, Climate and Communications 10.1%. 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 appointed by the Minister for Environment, Climate and Communications for a four-year term.

As of 31 December 2020, the Group comprised 9 direct and 101 indirect subsidiaries, as well as a range of other participations (joint ventures, associate undertakings). In 2020, change took place in the board and committee: Following the resignation of Ellvena Graham OBE as Chairman of the Board, Terence O'Rourke was appointed as Chairman for a five-year term.

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

- Customer Solutions consists mainly of the Group's customer-facing businesses including energy supply, energy services, telecoms and e-cars (Electric Ireland, Smart Energy Services, ESB e-Cars, ESB Telecoms and ESB Energy) in ROi, NI and GB. Customer Solutions' revenues consist of sales to electricity and gas customers, and other related services.
- ESB Networks focuses 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.
- Generation and Trading operates, develops, constructs and trades the output of power stations and wind farms in ROI, NI and GB. Generation and Trading revenues stem mainly from electricity generation.
- NIE Networks owns and operates the electricity transmission and distribution network in NI. The earnings originate from charges for the use of the networks, paid by the electricity suppliers or collected by the System Operator for Northern Ireland (SONI).

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 financing costs, as the majority of treasury activities are conducted centrally and costs are not assigned or recharged to other segments.

In Ireland, the Minister for Environment, Climate and Communications is responsible for energy matters and policy. The framework conditions for the electrification of the economy are strongly influenced by the "Climate Action Plan 2019 - To Tackle Climate Breakdown", published by the Irish Government in 2019 and updated in 2021. In Northern Ireland, the Department for the Economy aims to develop a strategic energy framework by the end of 2021. In the United Kingdom, a net zero carbon target by 2050 has already been set. The ESB Group is committed to environmental management and sustainability in all aspects of its business. Moreover, as part of its Brighter Future Strategy, the Company intends to take a key role in the transition to a low carbon energy system in Ireland. Potential risks could arise from failure to meet climate and other energy policy requirements.

Given the systemic importance of the Company as the owner of the national transmission network and as the owner and operator of the national distribution network, and bearing in mind the Government's role as the Company's majority shareholder, we do not see any core risks 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 risk

The business activities of ESB are subject to strong regulations in all its relevant markets at both the national and the European level (EU). The Commission for Regulation of Utilities (CRU) and the Utility Regulator (UR) 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 Networks Limited (NIE Networks), a wholly owned subsidiary of ESB, may, according to a license issued by UR and according to a price mechanism determined by UR, 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 UR 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 UR.

On 18 December 2020, ESB received the final decision for Price Review 5 (PR5) from the CRU, which set the allowable revenues as TAO and DSO in ROI for the regulatory period 2021-2025. ESB received a pre-tax real allowed return (WACC) of 3.8% and a significantly increased capital programme, reflecting considerable investment required to implement Ireland's 2019 Climate Action Plan. This decision has a stabilizing effect on the rating by ensuring the stability and predictability of regulatory frameworks, from which over two thirds of the ESB's revenue is derived. In NI, the principles applied by the UR are similar to those of the CRU and are based on the UK regulatory model. On 1 October 2017, the sixth regulatory price control period (RP6) began, which applies for the period until 31 March 2024. The RP6 WACC is 3.18% (vanilla real), which we believe is relatively low. However, the cost of debt component of the return will align through an adjustment mechanism to reflect the market cost of new debt raised during the PR6 period.

In accordance with EU legislation for 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) in 2018. The target model includes a new capacity remuneration mechanism that complies with latest EU state aid guidelines. This 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. The I-SEM is operated by the Single Electricity Market Operator (SEMO), a joint venture between EirGrid and SONI, the transmission system operators in Ireland and Northern Ireland respectively. The I-SEM generation sector comprises approx. 16 GW of capacity connected to the system on an all-island basis. The capacity connected to the system comprises a mix of older generation plants alongside modern combined-cycle gas turbine plants and renewable energy sources. On 1 January 2021, the United Kingdom's membership in the Internal Energy Market was terminated. The UK's withdrawal from the EU could have a negative impact on Ireland's energy infrastructure and, in particular, on the security of Ireland's energy supply. However, we consider this impact to be limited, as the Withdrawal Agreement provides for the operation of the I-SEM - as of the Northern Ireland Protocol (NIP) protects the functioning of the all-island market.

ESB's overall business is dependent on electricity consumption. Its main business risks therefore include a decline in overall business activities, as well as 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 and fuel prices paid by ESB in connection with electricity generation activities have remained volatile, putting pressure on ESB's cash flows and on the industry as a whole. In 2020, electricity prices in European day-ahead markets fell significantly by an average of 26% compared to the previous year. The Covid-19 pandemic led to a decline in electricity demand in many countries which, in combination with very low fuel prices, ultimately resulted in reduced electricity prices. In 2020, electricity prices in Ireland averaged €37.7/MWh for the year, well below the previous year's €50.2/MWh. Due to higher gas and CO2 prices, electricity prices have recovered considerably since the beginning of 2021, averaging €72.6/MWh for March. The impact of the COVID-19 pandemic has remained relatively limited, as two-thirds of the revenue is generated from regulated activities, thus providing stable and predictable cash flow generation. Although annual electricity demand across Europe fell significantly in 2020 compared to 2019, electricity demand in Ireland decreased by a mere 0.7% compared to the previous year. This was favored by the increasing transmission-linked demand from large energy consumers over the year 2020. During the COVID-19 crisis, the Company took a number of proactive measures to keep the country running smoothly and to ensure energy security. Due to the renewed waves and new variants of the virus, it is currently not foreseeable how long the COVID-19 pandemic will last and what political repercussions and economic impacts will follow.

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 currently faces 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 overall is subject to low-to-moderate business risks, as it is one of the leading energy producers in Ireland and operates for the most part in a regulated environment, in close coordination and cooperation with the Irish Government and authorities in all its 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 risk

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.

As of 31 December 2020, the ESB Group displayed an adequate capital structure. As of the 2020 balance sheet date, ESB had a sufficient analytical equity ratio of 30.1% (2019: 30.0%). Long- and medium-term liabilities accounted for 71% of total liabilities (EUR 6,683.1 million out of EUR 9,471.9 million) as of 31 December 2020. Most of the Company's assets are fixed assets (82%), reflecting the specific business conditions and highlighting the importance and high level of investment in the development and maintenance of network and power generation assets. The asset coverage ratio of 75% as of 31 December 2020 was satisfactory in our view, given the Group's high degree of fixed assets intensity.

The main business of ESB as an owner of the Irish electricity networks ensures 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 has sufficient credit facilities, which can be used either for investments or to cover any current liquidity needs.

In 2020, a new sustainability-related revolving credit facility with a total volume of EUR 1.4 billion by 2025 was concluded with 14 banks. The costs of this facility are linked to the achievement of specific CO2 reduction targets as part of the Group's Brighter Future Strategy. The facility was undrawn as of 31 December 2020, and - together with the cash balance of 249 million - represents the Group's main liquidity reserve. The Group has an EMTN Programme with a maximum total volume of EUR 5 billion and has issued an STG bond in 2020 with a total volume of GBP 325 million, a maturity of 15.5 years, and a coupon of 1.875%. The proceeds were mainly used to pay back debts due later in 2020. In July 2020, ESB issued EUR 200 million as part of its Green Bond Framework.

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 2020, 66% of ESB's corporate debt is denominated in EUR, 34% in GBP.

Taking into consideration the Group's liquidity of EUR 1.8 billion (comprising cash balance and undrawn committed credit facilities) as of 31 December 2020, last year's EBITDA of approximately EUR 1,175 million, the current financial debt obligations, as well as the Group's investment plan (approx. 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 not been able 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 largely predictable cash flows.

Issue rating

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 these reasons, we derive the rating of ESB Finance DAC from the unsolicited corporate issuer rating of ESB, A with stable outlook.

Issue rating

This issue rating is exclusively valid for the long-term senior unsecured issues denominated in euros, issued by ESB Finance DAC, and 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 10 July 2020, 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 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 primarily based on the corporate rating of the 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: Overview of CRA Ratings I Source: CRA

Rating Category	Details	
	Date	Rating
Electricity Supply Board (Issuer)	12.07.2021	A / stable
ESB Finance DAC (Issuer)	12.07.2021	A / stable
Long-term Local Currency (LC) Senior Unsecured Issues	12.07.2021	A / stable
Other	--	n.r.

Table 4: Overview of 2020 Euro Medium Term Note Programme I Source: Base Prospectus dated 10.07.2020

Overview of 2020 EMTN Programme			
Volume	EUR 5,000,000,000	Maturity	Depending on respective bond
Issuer	ESB ESB Finance DAC	Coupon	Depending on respective bond
Arranger	NatWest Markets	Currency	Depending on respective bond
Credit enhancement	Guaranteed by ESB	ISIN	Depending on respective bond

All future LT LC senior unsecured Notes issued by ESB or ESB Finance DAC and that have similar conditions to 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 any currency other 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. For the time being, other emission classes or programmes (such as the Commercial Paper Programme) and issues that do not denominate in euro will not be assessed.

Financial ratio analysis

Table 5: Financial key ratios of ESB Group | Source: ESB Group annual report 2020, structured by CRA

Asset structure	2017	2018	2019	2020
Fixed asset intensity (%)	87.25	87.76	86.67	86.30
Asset turnover	0.28	0.29	0.28	0.27
Asset coverage ratio (%)	70.93	71.18	71.41	75.32
Liquid funds to total assets	3.20	1.77	0.91	1.84
Capital structure				
Equity ratio (%)	33.44	30.21	29.98	30.06
Short-term debt ratio (%)	19.38	25.26	25.38	20.59
Long-term debt ratio (%)	28.45	32.26	31.91	34.94
Capital lock-up period (in days)	35.75	32.89	24.81	22.29
Trade-accounts payable ratio (%)	2.66	2.39	1.84	1.68
Short-term capital lock-up (%)	35.45	30.50	30.62	20.61
Gearing	1.89	2.25	2.30	2.27
Leverage	2.99	3.15	3.32	3.33
Financial stability				
Cash flow margin (%)	8.07	27.99	30.26	31.93
Cash flow ROI (%)	2.34	7.91	8.17	8.80
Total debt / EBITDA adj.	6.17	7.27	6.67	6.84
Net total debt / EBITDA adj.	5.88	7.09	6.59	6.66
ROCE (%)	5.57	5.22	6.88	6.37
Total debt repayment period	13.36	6.83	7.40	10.88
Profitability				
Gross profit margin (%)	76.89	73.05	65.30	65.96
EBIT interest coverage	0.84	1.39	3.18	1.89
EBITDA interest coverage	4.51	4.83	7.54	6.04
Ratio of personnel costs to total costs (%)	19.67	19.43	14.69	13.25
Ratio of material costs to total costs (%)	27.81	31.27	34.70	34.04
Cost income ratio (%)	100.71	97.12	84.33	90.18
Ratio of interest expenses to total debt (%)	2.81	2.52	1.92	2.05
Return on investment (%)	1.55	2.19	3.79	2.35
Return on equity (%)	-0.78	1.53	8.42	3.07
Net profit margin (%)	-0.93	1.65	9.11	3.37
Operating margin (%)	5.43	8.65	15.81	9.86
Liquidity				
Cash ratio (%)	16.53	7.02	3.59	8.92
Quick ratio (%)	53.56	40.78	45.97	55.13
Current ratio (%)	65.81	48.44	52.53	66.53

Appendix

Rating history

The rating history is available under https://www.creditreform-rating.de/en/ratings/published-ratings.html.

Table 6: Corporate issuer rating of Electricity Supply Board | Source: CRA

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	01.10.2018	31.10.2018	Withdrawal of the rating	A / stable

Table 7: Corporate issuer rating of ESB Finance DAC | Source: CRA

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	01.10.2018	31.10.2018	Withdrawal of the rating	A / stable

Table 8: LT LC senior unsecured issues by ESB Finance DAC | Source: CRA

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	01.10.2018	31.10.2018	Withdrawal of the rating	A / stable

Regulatory requirements

The rating[2] was not endorsed by Creditreform Rating AG (Article 4 (3) of the CRA Regulation).

The present rating is, in the regulatory sense, an unsolicited rating that is public. The analysis was carried out on a voluntary basis by Creditreform Rating AG, which was not commissioned by the Issuer or any other third party to prepare the present rating.

The rating is based on the analysis of published information and on internal evaluation methods for the assessment of companies and issues. The rating object was informed of the intention of creating or updating an unsolicited rating before the rating was determined.

The rating object participated in the creation of the rating as follows:

Unsolicited Corporate Issuer / Issue Rating	
With rated entity or related third party participation	No
With access to internal documents	No
With access to management	No

The rating was conducted based on the following information.

[2] In these regulatory requirements the term "rating" is used in relation to all ratings issued by Creditreform Rating AG in connection to this report. This may concern several companies and their various issues.

List of documents
Accounting and controlling
▪ ESB Annual Results and Accounts 2020
▪ ESB Networks Price Review 5 (2021-2025)
▪ ESB Investor Presentation September 2020
▪ ESB Debt Investor and Business Update January 2020
▪ ESB Sustainability Report 2019
Finance
▪ ESB EMTN Base Prospectus dated 10 July 2020
▪ Final Terms of the Outstanding Notes
▪ ESB – Third Supplemental Trust Deed 2020
Additional documents
▪ Press releases

A management meeting did not take place within the framework of the rating process.

The documents submitted and information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodologies.

The rating was conducted based on the following rating methodologies and the basic document.

Rating methodology	Version number	Date
Corporate Ratings	2.3	29.05.2019
Government-related Companies	1.0	19.04.2017
Non-financial Corporate Issue Ratings	1.0	October 2016
Rating Criteria and Definitions	1.3	January 2018

The documents contain a description of the rating categories and a definition of default.

The rating was carried out by the following analysts:

Name	Function	Mail-Address
Natallia Berthold	Lead analyst	N.Berthold@creditreform-rating.de
Christina Sauerwein	Analyst	C.Sauerwein@creditreform-rating.de

The rating was approved by the following person (person approving credit ratings, PAC):

Name	Function	Mail-Address
Philipp Beckmann	PAC	P.Beckmann@creditreform-rating.de

On 12 July 2021, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the Company on 13 July 2021. There has not been a subsequent change to the rating.

The rating will be monitored until Creditreform Rating AG withdraws the rating. The rating can be adjusted as part of the monitoring if crucial assessment parameters change.

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

ESG-factors

Whether or not ESG factors were relevant to the rating can be seen in the upper section of this rating report "Relevant rating factors".

A general valid description for Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found here.

Conflicts of interest

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 involved in credit rating activities or in approving credit ratings and rating outlooks.

In the event of providing ancillary services to the rated entity, Creditreform Rating AG will disclose all ancillary services in the credit rating report.

Rules on the presentation of credit ratings and rating outlooks

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, Creditreform Rating AG has used following substantially material sources:

<u>Corporate issuer rating:</u>

1. Annual report

2. Website

3. Internet research

<u>Corporate issue rating:</u>

1. Corporate issuer rating incl. information used for the corporate issuer 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 Creditreform Rating AG website. Furthermore, Creditreform Rating AG 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 Information 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".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the Basic Data Information Card.

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009, a registered or certified credit rating agency shall make available, in a central repository established by ESMA, information on its historical performance data including the rating transition frequency and information about credit ratings issued in the past and on their changes. Requested data are available at the ESMA website.

An explanatory statement of the meaning of Creditreform Rating AG's default rates are available in the credit rating methodologies disclosed on the website.

Disclaimer

Any rating performed by Creditreform Rating AG is subject to the Creditreform Rating AG Code of Conduct, which has been published on the web pages of Creditreform Rating AG. In this Code of Conduct, Creditreform Rating AG commits itself – systematically and with due diligence – to establish its independent and objective opinion as to the sustainability, risks and opportunities concerning the enterprise or the issue under review.

Future events are uncertain, and forecasts are necessarily based on assessments and assumptions. This rating is therefore no statement of fact, but an opinion. For this reason, Creditreform Rating AG cannot be held liable for the consequences of decisions made on the basis of any of their ratings. Neither should these ratings be construed as recommendations for investors, buyers or sellers. They should only be used by market participants (entrepreneurs, bankers, investors etc.) as one factor among others when arriving at corporate or investment decisions. Ratings are not meant to be used as substitutes for one's own research, inquiries and assessments.

We have assumed that the documents and information made available to us by the client are complete and accurate and that the copies provided to us represent the full and unchanged contents of the original documents. Creditreform Rating AG assumes no responsibility for the true and fair representation of the original information.

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