

Credit Opinion: Landsvirkjun

Global Credit Research - 29 Mar 2012

Reykjavik, Iceland

Ratings

Category	Moody's Rating
Outlook	Negative
Senior Unsecured	Baa3
Bkd Other Short Term	(P)P-3

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Key Indicators

Landsvirkjun

	Dec-11	Dec-10	Dec-09	Dec-08
FFO Interest Coverage	2.7x	3.2x	2.8x	1.4x
CFO / Net Debt	9.5%	8.0%	6.4%	4.5%
FFO / Net Debt	8.2%	7.1%	5.9%	2.6%
RCF / Net Debt	8.2%	7.1%	5.9%	2.3%
RCF / (Capex + Acquisitions - Divestitures)	293.2%	622.1%	256.8%	30.4%

Note: For definitions of Moody's most common ratio terms please see the accompanying [User's Guide](#).

Opinion

Corporate Profile

Landsvirkjun is Iceland's largest electric utility, owning the majority of the transmission grid and responsible for around 75% of Iceland's total electricity production of 17 TWh. It provides energy for domestic users via electricity sales to public utilities, although the bulk of sales are to power intensive industries (PII), mostly for aluminium smelting, an important source of Iceland's foreign currency earnings.

Landsvirkjun was established on 1 July 1965, as a jointly owned enterprise by its shareholders the Republic of Iceland (50%), the City of Reykjavik (45%) and the Township of Akureyri (5%). Following a period of negotiation, the Republic of Iceland agreed to buy the shares of both the City of Reykjavik and the Township of Akureyri and therefore assumed full ownership of Landsvirkjun as of 1 January 2007. Landsvirkjun remains a partnership and in order to meet the requirements of the partnership agreement, 99.9% of the company is owned by the Republic of Iceland and 0.1% by Eignarhlutir hf, a special purpose vehicle owned by the Republic of Iceland. The ownership changes and the amended law on Landsvirkjun Nr 42/1983 came into effect on 1 January 2007. This act was further amended in 2011 and provides that the owners are liable, both jointly and severally, as guarantors of collection for the company's financial obligations, if a guarantee of collection for such financial obligations is applied for from the state.

Rating Rationale

Landsvirkjun's Baa3/(P)P-3 debt ratings are in line with the government of Iceland's Baa3 local and foreign currency bond ratings, given the explicit support provided by the state under the guarantee of collection to Landsvirkjun and the company's strategic role in Iceland.

Landsvirkjun's standalone assessment, expressed as a baseline credit assessment (BCA) of 14 (B1 equivalent) reflects (i) Landsvirkjun's still high financial leverage; (ii) exposure to aluminium prices in a weak commodity market; (iii) concentrated exposure to a comparatively small number of counterparties in the aluminium industry; (iv) currency risk; and (v) vulnerability to increases in funding costs in the event of higher interest rates. However, these negatives are partially offset by its dominant position in the Icelandic energy market, supported by the company's low-cost renewable generation asset base, albeit in a small and isolated market.

DETAILED RATING CONSIDERATIONS

Landsvirkjun's rating assessment reflects the application of our Rating Methodology for Government-Related Issuers (GRIs). Landsvirkjun's Baa3 rating incorporates an uplift for potential government support to its standalone credit quality. This is expressed by us as a BCA of 14 (on a scale of 1 to 21, where 1 represents the lowest risk and 14 is equivalent to B1). The uplift to the BCA is a result of the government of Iceland's credit quality, which owns 99.9% of Landsvirkjun, coupled with our assessment of a very high probability of government support in the event of financial distress, as well as high default dependence (i.e., degree of exposure to common drivers of credit quality).

In our assessment of Landsvirkjun's credit profile, we also apply our global Rating Methodology for Unregulated Utilities and Power Companies, published in August 2009. Under this methodology, Landsvirkjun is considered an Unregulated Power Company and the grid output maps to Ba2. In assigning the BCA of B1, we give additional weight to the company's exposure to aluminium prices in a weak commodity market, a degree of currency mismatch between revenues and debt service costs, as well as vulnerability to increased funding costs in the event of higher interest rates.

The following factors influence Landsvirkjun's rating under the Unregulated Utilities and Power Companies methodology:

FACTOR 1: MARKET ASSESSMENT, SCALE AND COMPETITIVE POSITION

(a) Market and Competitive Position

Landsvirkjun is Iceland's largest electric utility, owning 65% of Landsnet, the national transmission grid and generating around 75% of the country's electricity production. The company's installed capacity, totalling 1,860 MW, is mainly based on hydro sources, which account for approximately 96% of the total owned capacity, with geothermal plants accounting for the remainder. Given the very low marginal costs of production associated with its hydro sources, Landsvirkjun has a very attractive generation portfolio, albeit in a small and isolated market, where there is only some competition from regional companies, primarily Reykjavik Energy and Hitaveita Sudurnesja.

In scoring the company A on this factor, we recognise Landsvirkjun's significant market position in Iceland, but also consider the relatively small size of the overall market, its relative illiquidity and its concentration exposure to a comparatively small number of counterparties in the aluminium industry.

(b) Geographic Diversity

Landsvirkjun scores Ba on this factor as it operates within a single economic area with low demand volatility as much of its power is sold under long-term contracts.

FACTOR 2: CASH FLOW PREDICTABILITY OF BUSINESS MODEL

(a) Effectiveness of Hedging Strategy

Landsvirkjun is predominantly a wholesale producer, with over 85% of revenues coming from power sales. The balance is from transmission activities, spread between local utilities and PII's. Whilst recognising the attractiveness of the cost structure associated with Landsvirkjun's hydro base, we note that power price can be very volatile given its linkage to, inter alia, the price of aluminium, when the costs associated with this generation source are largely fixed, thus affecting cash flow predictability.

Around 18% of Landsvirkjun's revenues are derived from sales to local utilities, which are considered relatively low risk given the number of short and medium-term sales contracts. They are denominated in ISK and linked to the Icelandic consumer price index (CPI). This customer base comprises public utilities, including Reykjavik Energy, and other municipal distribution companies for contracts amounting to 1,870 GWh per annum.

The bulk of sales (over 80% of total revenues) are to PII's. About half of sales are through contracts directly linked to aluminium prices and based in US dollars. In 2011, PII customers accounted for around 11,160 GWh of Landsvirkjun's sales under the following contracts: Alcoa Fjarðal, Alcan Iceland, Nordural, Icelandic Alloys and Becromal. These contracts have long term maturities, all of which are "take or pay", where the customers have to pay, whether or not they use the electricity. After an amendment to one of the power contracts in October 2010, as the first step in Landsvirkjun's new strategy for pricing energy in Iceland, the company's exposure to aluminium price volatility was reduced, although 47% of PII sales remain linked to aluminium prices.

Despite the long-term nature of the contracts with the aluminium smelters, Landsvirkjun's cash flows are exposed to a high level

of volatility, primarily as a result of the link between the power sale price and aluminium price. Aluminium price tends to be very volatile. For example, the aluminium price underwent a major correction, when it dropped from over \$3,000 per tonne in July 2008 to around \$1,300 per tonne in February 2009. As of mid-March 2012, spot aluminium was around \$2,200. We note that in order to reduce cash flow volatility, the company has adopted a hedging strategy, wherein they hedge a certain percentage of their future energy sales. The actual amount hedged is dependent on market conditions and aluminium price forecasts.

We assign Landsvirkjun a score of B for the Effectiveness of Hedging Strategy sub-factor, reflecting the inherent volatility in much of the cash flows given their link to the aluminium price, as well as the concentration of contracts with a small number of companies.

(b) Fuel Strategy and Mix

Landsvirkjun currently operates 11 hydropower plants and two geothermal plants. In 2011, Landsvirkjun produced 12,500 GWh of electricity, of which 96% was produced from hydrological resources and 4% from geothermal resources. Overall, Iceland's fuel mix is based on 73% hydro and 27% geothermal sources. The company bought approximately 400 GWh for resale to PII's.

A score of single-B is assigned for Fuel Strategy and Mix, reflecting the limited diversification of fuel source, partially offset by the value of the renewable nature of its fuel mix.

(c) Capital Requirements and Operating Performance

In 2008, Landsvirkjun completed the construction of a major project in the East of Iceland, the 690 MW Karahnjúkar hydropower plant. This plant remains wholly owned and operated by Landsvirkjun and its purpose is to supply the newly constructed aluminium plant owned by Alcoa. The project is now fully operational, with all capex-related costs completed.

Following the completion of this project, capital investments are significantly reduced compared with the historical levels of over \$600 million per annum pre-financial crisis. Current investments include the Budarhals hydro power project for another 95 MW of capacity (to produce 585 GWh). Its total construction cost is estimated at around \$220 million. Works began in 2010 and the plant is scheduled to be fully operational by year-end 2013. Other investments will be mainly related to maintenance, with some investment in developing the transmission grid. Possible further projects include a number of new power projects in Southern Iceland. Geothermal power plants in the North-East of Iceland are also possibilities. Landsvirkjun has however, not undertaken any obligations regarding new projects.

Landsvirkjun has also engaged in a feasibility study on a sub-marine cable between Iceland and Europe. This would be a very significant and strategic project for Iceland. However, no decisions have been made with regard to its construction and Landsvirkjun's possible involvement.

The Capital Requirements and Operating Performance sub-factor is scored A. Operating performance has been solid and future output is considered to be relatively predictable. Overall, moderate levels of capex are required for maintenance and for environment-related expenditure, and availability at Landsvirkjun's plants is generally high (according to historical average the units are available for generation 96% of the time).

FACTOR 3: FINANCIAL POLICY

Landsvirkjun scores B on this factor, given the company's historical reliance on debt funding to finance a large investment programme, albeit under the guarantee of collection of its owners, without any equity support. The past financial policies have resulted in the company's leveraged financial profile and consequent refinancing risk.

However, we note that Landsvirkjun has strengthened its liquidity position in recent months and we expect that the company will continue following its prudent financial policies in terms of maintaining adequate amounts of committed facilities to manage refinancing risk in the volatile financial markets.

FACTOR 4: FINANCIAL STRENGTH METRICS

Landsvirkjun scores weakly on financial metrics. The company's financial profile remains highly leveraged, although we note an improvement in 2009-11, following completion of a very sizeable capital investment programme. The company's financial flexibility remains, however, constrained by significant exposure to movement in aluminium prices and interest rates, as well as more limited exposure to currency risk, although Landsvirkjun does enter into hedging contracts to mitigate these risks.

Spot aluminium prices are currently around \$2,200 per tonne, down from the peaks of early 2008, but nonetheless, an improvement on the lows seen in late 2008 and 2009. We believe aluminium prices could remain under pressure for some time, given the weak end-market environment (excluding China), the high inventory position on the London Metal Exchange, potential stockpile sales by China's State Reserve Bureau and the level of aluminium tied up in financing transactions.

A large portion of Landsvirkjun's debt is subject to variable rates, and hence although the company has benefited from the recent drop in market interest rates, it is also vulnerable to a rise in its total cost of debt as a result of higher credit spreads.

Landsvirkjun's reporting currency is US dollar, the currency in which most of its revenues are derived (70% US dollars, 25%

Icelandic krona, 5% Norwegian krona). As a substantial proportion of its debt is US dollar denominated, the company has limited exposure to the weak Icelandic krona. It has, however, some sensitivity to adverse movements in the US dollar against the euro given the weighting towards the latter currency in its funding base (around 36% of debt as of end-2011 was euro denominated).

With the completion of major investment projects, we expect that the company's debt coverage metrics such as funds from operations (FFO)/ net debt and retained cash flow (RCF)/ net debt will improve gradually, although will likely remain in the mid-to high-single digits into the medium term. The pace of improvement in Landsvirkjun's credit metrics will be primarily dependent on the level of aluminium prices and funding costs, but also whether the company undertakes any further investment projects or pays dividends.

OTHER GRI FACTORS

Our assumption of very high support reflects the explicit support for Landsvirkjun from its shareholder - the Icelandic state - through the guarantee of collection. Under Landsvirkjun's original Act of 1983 (as subsequently amended in 2007), and the partnership agreement, the shareholders were liable for the obligations of Landsvirkjun at the time they were incurred in proportion to their shareholding. Nonetheless, ultimately there was a joint and several liability of all shareholders for the obligations.

We note that the Act on Landsvirkjun, was amended in 2011. The revised law states that Landsvirkjun must now apply for a guarantee from its owners on a case by case basis and that only financial obligations can benefit from such guarantees. Previously the guarantee of collection benefitted all creditors and no specific applications were required. However, the state's guarantees of the company's financial liabilities and long-term power contracts entered into before the amendment are unaffected.

The terms of the \$2.5 billion EMTN programme allow for issuance of notes only with the benefit of a guarantee of collection provided by the Republic of Iceland and Eignarhlutir ehf. Despite the fact that a guarantee of collection is not a timely payment guarantee, we believe that there are strong incentives for the owners to provide timely support to Landsvirkjun. However, if the terms of the programme were to be changed such that the company were able to issue notes also without such guarantees, such notes may not benefit from the same rating.

Guarantees of collection, which are common in the Nordic region, do not offer bondholders the same degree of protection as a timely payment guarantee. There is a potential risk of non-timely repayment should the company fail to meet its obligations, as exhaustive administrative and legal procedures must be followed before the shareholders are obliged to pay. However, given Landsvirkjun's vital strategic importance to Iceland and other incentives for the shareholders (such as its liability for penalty interest), we expect that the state would intervene in a timely fashion and provide financial or other assistance.

Our assessment of high default dependence balances Landsvirkjun's position as the country's dominant electric utility with the company's high level of US dollar-denominated revenues from contracts with exporting aluminium smelters with international parent companies.

Liquidity

Landsvirkjun's current liquidity profile is adequate for 2012 and sufficient to carry it into 2013. The 2012 debt amortisation of around \$130 million and planned investments are fully covered by over \$500 million of cash and revolving credit facilities (RCF) with commercial banks. In addition, we expect that solid cash flow generation will support liquidity.

As of 31 December 2011, Landsvirkjun had \$230 million of cash and cash equivalents, as well as access to \$285 million under committed long-term RCFs. Of this amount, \$200 million relates to a committed revolving facility maturing in December 2014 and the remaining \$85 million (ISK10.5 billion equivalent) relates to a new long-term RCF facility with Icelandic banks, also maturing in December 2014.

We note that the company has a relatively well-spread maturity profile, which mitigates refinancing risk. However, cash flow could be challenged by low aluminium prices and increasing interest rates, which could negatively impact these assumptions. Recently agreed bank loans as well as the bond issuance indicate the company's ability to access debt markets in the current difficult economic environment.

Other Considerations

MARKET STRUCTURE

In response to the EU directive on separation of transmission, generation, distribution and sales of electricity, the Icelandic Parliament ratified The Electricity Act, a law that was enforced on 1 July 2003. The market has been progressively liberalised, and there has been some pressure on domestic electricity prices. However, the market is rather small and too isolated for meaningful competition. Landsvirkjun has entered into long-term contracts with local supply companies to protect against this risk, as described under the Hedging Strategy section.

In 2005, as a result of the Electricity Act, transmission activities were spun off into a separate subsidiary, Landsnet. Landsvirkjun still maintains a majority 65% share, but no longer operates the transmission grid.

OWNERSHIP

Incorporation, which would permit a privatisation of Landsvirkjun, has been periodically raised as a topic in Iceland. However, the current partnership structure suggests that no such change is likely in the medium term.

Rating Outlook

The negative outlook on the ratings of Landsvirkjun reflects our negative outlook on the Icelandic government's ratings.

What Could Change the Rating - Up

Given the current negative outlook, we do not expect upward rating pressure in the intermediate term. However, the outlook could return to stable if the outlook on the sovereign rating was changed to stable and there were no changes to our view of support assumptions incorporated in our current assessment of Landsvirkjun.

What Could Change the Rating - Down

We would expect to downgrade the rating (i) following a downgrade of the sovereign rating; (ii) if we were to perceive that there was a reduced likelihood of the government providing timely support to Landsvirkjun.

Rating Factors

Landsvirkjun

Unregulated Utilities and Power Companies	Aaa	Aa	A	Baa	Ba	B	Caa
Factor 1: MARKET ASSESSMENT, SCALE AND COMPETITIVE POSITION (20%)							
a) Market and Competitive Position			X				
b) Geographic Diversification					X		
Factor 2: CASH FLOW PREDICTABILITY OF BUSINESS MODEL (20%)							
a) Hedging Strategy						X	
b) Fuel Strategy and Mix						X	
c) Capital Requirements and Operating Performance			X				
Factor 3: FINANCIAL POLICY (10%)						X	
Factor 4: FINANCIAL STRENGTH METRICS (50%)							
a) FFO + Interest / Interest					X		
b) FFO/Net Debt						X	
c) RCF/Net Debt						X	
d) FCF/Net Debt					X		
Rating:							
a) Indicated Rating from Grid					Ba2		
b) Actual BCA Assigned						B1	

Government Related Issuer	Factor					
a) Baseline Credit Assessment	B1					
b) Government Local Currency Rating	Baa3					
c) Default Dependence	High					
d) Support	Very High					



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