

MAY 28, 2015



# FINANCIAL REPORT 2014

TREASURY AND RISK MANAGEMENT  
REYKJAVIK ENERGY

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## 1 Summary

Reykjavik Energy's (RE) finances have been in the public eye ever since The Banking Crash of 2008. The report from RE's Examination and Analysis Committee from the year 2012 describes the financial status e.g. state of the company. Stating e.g. that (RE's) executives emphasized funding the company in foreign currency in order to minimize interest costs. At the same time too little was done to hedge against fluctuations in forex rates and falling aluminum prices. These decisions resulted in RE's foreign loans doubling in ISK and the financial position became burdensome.

A great deal has been accomplished in the last few years emphasizing RE's much better access to financial markets abroad. Facilitating both credit and hedging. Greater number of banks now seek RE's business offering loans without extra guarantees or warranties. RE is in a position to choose among financial institutions to do business with based on terms. This is a significant change and a source of gratification. Care must be taken to preserve this trust RE enjoys by maintaining a strong liquidity position and (effective) risk hedging.

With the introduction of THE PLAN, the concerted effort of RE and its owners, profound changes were implemented. These were i.e. a tightening in operations, liquidating assets, reducing investments and increasing tariffs.

The Treasury and Risk Management has since been considerably improved and new policies for treasury and hedging have been approved and implemented. RE's board now receives a monthly report on the companies risk profile.

RE increased it's hedging in 2012. Before hedging had been limited. Hedging contracts have grown in numbers and now span longer periods, going hand in hand with the financial markets improved confidence in RE. Hedging for interest rates, aluminum prices and forex rates, including ISK, are now in place up to 5 years forward. Economic risk due to forex rates has been reduced as a result of the unbundling and Our Nature (ON), a subsidiary company, with USD as its operating currency.

RE still faces challenges but Treasury and Risk Management is working towards reducing RE's risk and improve its financial stability. Key ratios have been presented by The Department of Treasury and Risk Management. These ratios describe RE's goals in order to obtain financial health.

The purpose of this report is:

- To improve awareness and understanding of RE's financial management and financial position.
- Look back to observe what can be improved and what was done well.
- Set measurable goals for both short and long term.

These goals are all suited to improve RE's financial position. The report opens opportunities for criticism and for new stress tests. Also challenges RE's Board, executives and Treasury and Risk Management.

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## 2 Financial comparison

Treasury management emphasizes control of RE's key ratios of liquidity. Comparison of ratios of benchmark companies is important but there is no company quite comparable to RE i.e. regarding country, market environment or industry.

Key ratios are presented by Treasury and Risk Management and they form e.g. goals for RE's sound financial health. The ratios for the companies are at 2014 year-end:

Ratios	Goal	Reykjavik Energy	Landsvirkjun	HS Orka	Vattenfall	Dong Energy
Current Ratio	> 1	0.7 (2013: 0.6)	0.8	2.6	1.0	2.1
Equity Ratio	> 35%	33.2% (2013:28.6%)	39.9%	59.0%	25.9%	41.1%
Net Debt / Cash from operation	< 5	7.8 (2013: 8.2)	9.5	4.2	4.9	2.7
FFO interest coverage	> 3.5	5.6 (2013: 4.2)	3.8	8.4	4.7	2.2
FCF / Net Debt	> 0%	8.9% (2013: 8.3%)	7.2%	15.7%	1.9%	26.9%
Moody's	Baa3	B1 Positive	Ba2	NA	A3	Baa1
Fitch Rating	BBB-	BB- Stable	NA	NA	NA	NA
Standard & Poor	NA	NA	BB	NA	A-	BBB+
Reitun	i.AA3	i.A3 Positive	A			

The ratios depict the financial strength of the companies and the table shows RE's goal values for each ratio. Current ratio shows a company's ability to fulfill its obligations in the near term and its solvency for the next 12 months. In general a company's financial strength increases with increasing equity ratio. Net liabilities against cash from operations is indicative of how many years it will take a company to pay down its obligations should this cash-flow solely be used for this purpose. Interest coverage ratio indicates a company's ability to service its debt. Free cash-flow against net debt describes a company's ability-to-pay.

Based on the present annual budgets for the next five years RE will – all parameters remaining unchanged – be able to pay dividend in the year 2018 with-out sacrificing the goals presented in the table here above.

Rating companies have expressed content with RE's ratios and have observed that the goals will do well to keep RE in good financial health both before and after payment of dividends.

### 3 Treasury Management

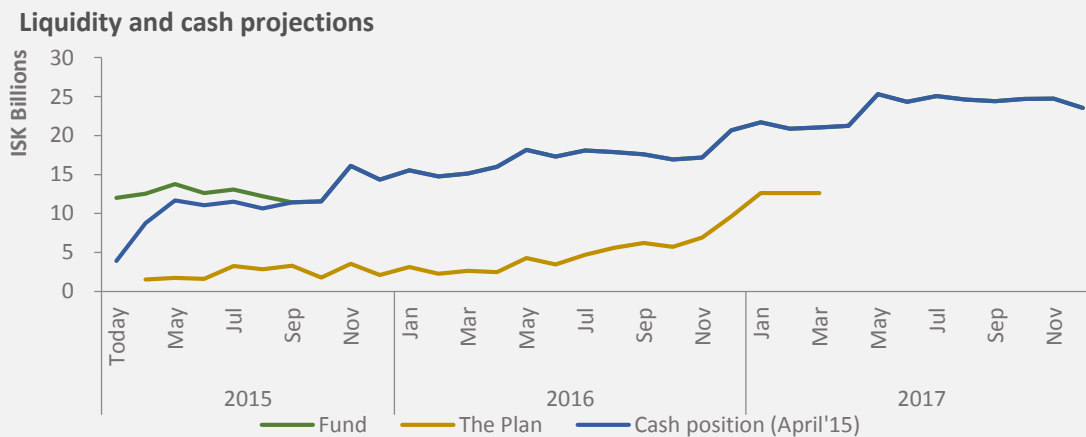
Treasury Management executes the placing of cash reserves for both short and long term. The goal is to maximize the return with consideration for the risk.

Amortizations of debt is considerable for the next few years therefore emphasis is on short term return on placement. Refinancing of debt would open up opportunities to look further ahead. Cash-flow schedule is prepared annually and cash-on-hand is observed closely day-by-day. This allows for better control of cash-on-hand observing returns, credit-lines and Forex investments. Decisions regarding treasury management should consider all these parameters in tandem.

RE's investment budget is observed when deciding on investments as are RE's policies on treasury management and policies on risk. One of RE's goals is to bring the current ratio above one. This ratio shows RE's ability to execute the necessary payments for the next 12 months. Treasury management aims at reaching this goal by controlling cash-on-hand and improved access to credit lines.

#### 3.1 Cash management

The cash flow is monitored and managed every day in all currencies. Cash report is updated daily and the flow is observed by assembling data from all financial systems. Observing the actual position on RE's bank accounts, expected inflows and outflows is paramount. Outflow stems from payment of account payable, debt servicing and risk hedging. The following graph depicts the expected cash-on hand from March 2015 through April 2017. (Also liquidity positions from present year and through 2017).



The yellow graph shows the initial cash flow expectations, the blue graph shows the April 2015 cash flow forecast and the green graph shows cash-on-hand, including demand deposits, in real terms. The cash flow forecast is based on the approved budgets for the years 2015- 2020. According to the budgets new loan contracts of ISK 23 billion are foreseen.

#### 3.2 Asset Management and investment framework

The goal of the treasury is to maximize return while considering the risk. The decision on how to place cash-on-hand is made considering i.e. return on investment and RE's needs at each time. The management invests cash in accordance with the investment framework agreed on by The Risk Council in 2014.

**Goal:**  
To maximize return on cash with respect to currency, type of asset and risk.

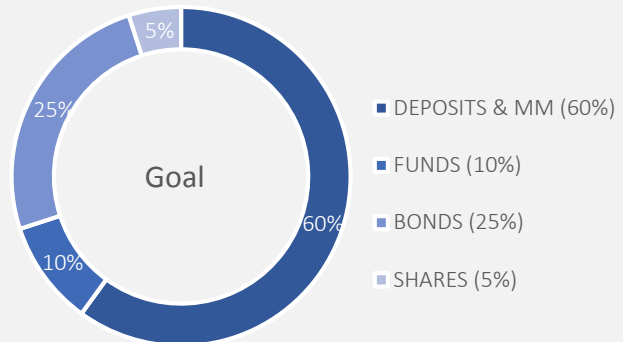
RE's investment framework expresses the long term policy on asset structure, reviewed annually. The investment framework defines the ratio of each asset group and their tolerances.

To-day RE's cash is mostly invested in deposits, time deposits and liquidity funds

Investment framework	Goal	Minimum	Maximum
Available within 30 days	<i>Est. outflow &lt; 30 days</i>	<i>Est. outflow &lt; 30 days</i>	85%
Available in forex	<i>Est. outflow in FX &lt; 6 months</i>	<i>Est. outflow in FX &lt; 6 months</i>	
Term deposits and MM	60%	0%	90%
Liquidity funds	10%	0%	30%
Bonds and bond funds *	25%	10%	70%
Shares and share funds *	5%	0%	15%

\* According to Treasury and Risk Policy bonds and shares not related to RE's core business shall not exceed or be equal to 5% of RE's consolidated equity. Today RE owns a bond that crosses limit set by the policy.

While current ratio is below one the company's investments are mainly in deposits and liquid assets. The exceptions are an investment in one bond and equity in a company related to RE's core activities. These instruments are outside the scope of cash management. The distribution of the portfolio on various assets groups is therefore less than aimed for in the investment framework and the concentration of issuers is greater. With changing cash status RE will review the investment framework taking into account assets maturity. To observe counter party and issuers risk, comparison is made between domestic financial institutions RE is doing business with, presented in Annex A. Improved cash-on-hand and better result measurements opened the possibility to run a more efficient treasury management and increase maturity of underlying assets should it be found feasible.

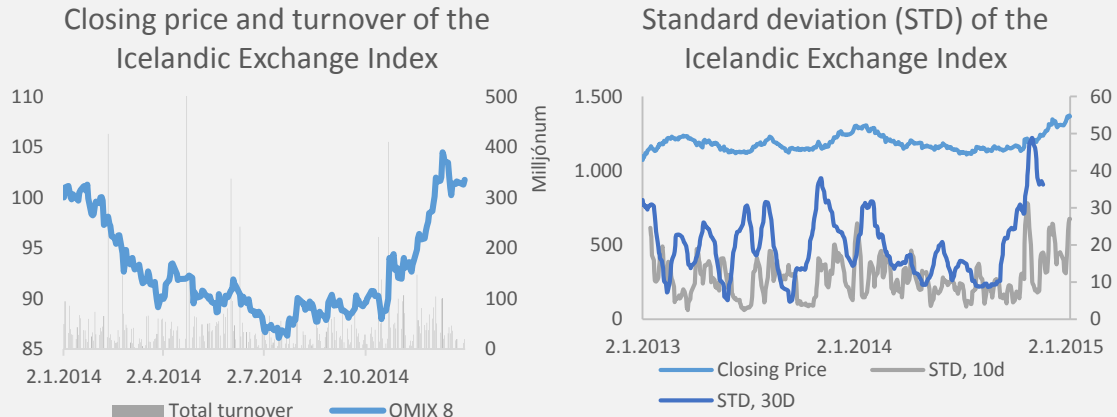


The goal for 2015 taking into consideration risk and the investment framework:

- Maximize the return on cash with respect to currency, type of assets and risk.

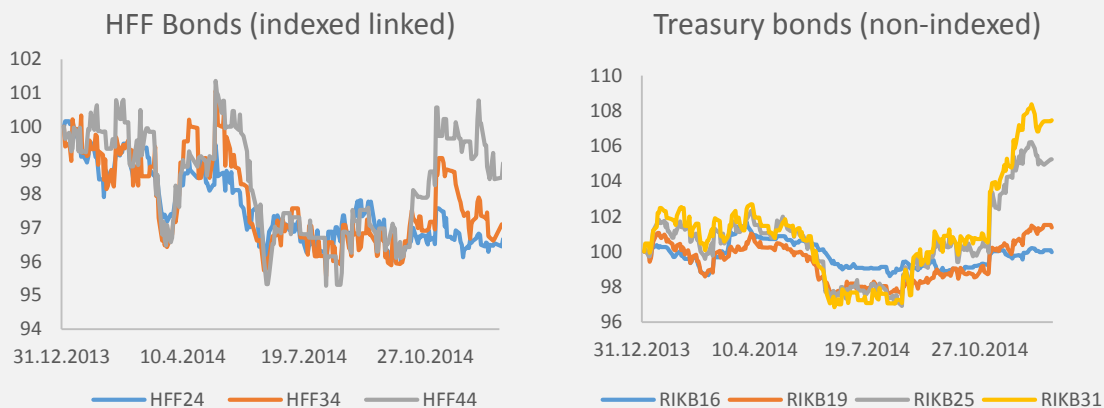
### Historical trends and prospects

The following graphs show historical trends over the past year for the bond and stock market in Iceland. The factors most often observed are the total turnover, the fluctuations and price. Past results give no guarantees for the future but can be indicative of possible future fluctuations.



Source : Icelandic Stock Exchange website at NASDAQ <http://www.nasdaqomxnordic.com/>

Due to increased GNP and low inflation in 2014 interest in non-indexed bonds increased. This has turned around in the first months of 2015 due to reservation in the market about a sharp rise in inflation following the negotiations of a new contracts in the workplace and also due to The Governments next steps in abolishing the capital controls on movement of capital across borders. The asking price for indexed bonds has been rising and going down for non-indexed bonds.



Source : Icelandic Stock Exchange website at NASDAQ <http://www.nasdaqomxnordic.com/>

### 3.3 Foreign currency exchange

Roughly 75% of RE's debt is nominated in foreign currency where as 85% of its revenue is in ISK. It is therefore important that The Company keeps an active hand in the forex market. Installments in foreign currency have in the last few years been steep and for a while RE's buying of foreign currency affected the rate of the ISK.

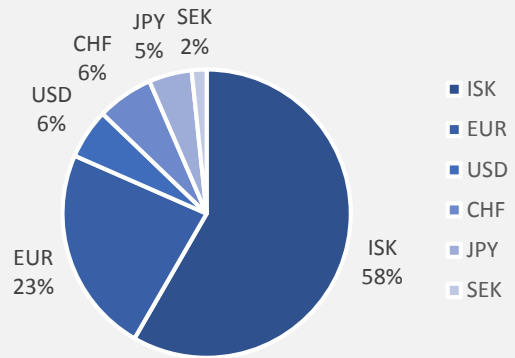
**Goal:**  
Have on hand foreign currency to cover at least six months outflow of each currency.

In 2014 RE purchased foreign currency to meet that years outflow and additional currency to meet the following 6 months outflow.

Treasury Management closely follows the forex market in addition to the macro statistics related to the currencies representing RE's indebtedness. Always seeking the most favorable terms.

The forex market has been volatile this year. The substantial strengthening of USD and the unexpected strengthening of the CHF coincided with a considerable weakening of the EUR. Notwithstanding these great fluctuations the recent changes in currency rates have had beneficial effect on RE's finances due to the structure of the company's currency mix, hedging contracts and bank account assets in forex.

Deposits by currency 31.12.2014



Goal for currency purchases in 2015:

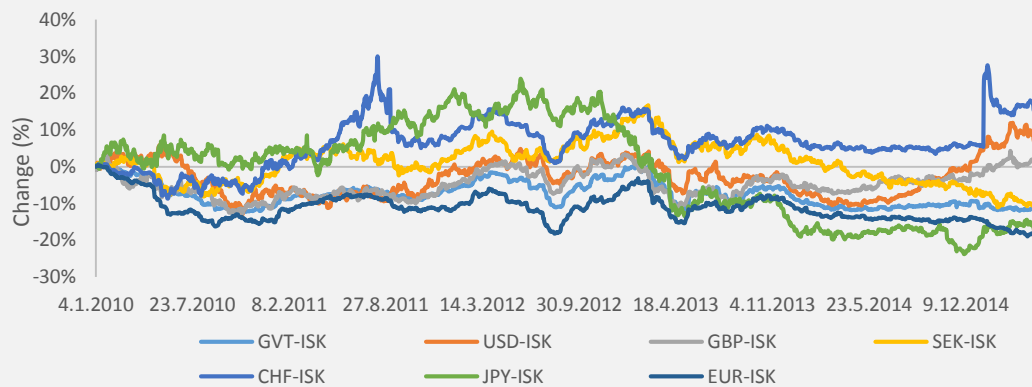
- Have on hand foreign currency to meet at least six months outflow.

### Historical trends and prospects

The forex market was quite active through the year 2014. The ISK is not linked to any other currency but it appears that The Central Bank of Iceland has kept the ISK steady by being active in the forex market. The Central Bank's foreign currency purchases in 2014 were ISK 111 billion.

The forex market might prove to be interesting this year if and when the capital controls will be abolished.

Historical foreign exchange rates



Source: Central Bank of Iceland. website : [www.sedlabanki.is](http://www.sedlabanki.is)

## 4 Financing

One of Treasury Management's main challenges is efficient financing. Since the year 2011 emphasis has been placed on strengthening relations with investors both domestically and abroad. Part of this endeavor has been regular informative meetings and publications with accurate, timely, specific and organized data on the company, its policies and THE PLAN. This endeavor has succeeded beyond expectations.

### Goal:

Net Debt / EBITDA < 5  
Current ratio = 1  
Ensure financing and financing plan for the next 5 years.  
Extend credit lines by 2 years.



RE's financing opportunities have regularly increased in numbers and Treasury Management has sought to find new opportunities and solutions in solving the companies financing needs. Now RE has better prospects regarding loans, credit lines and other sources of financing. Also hedge contracts have been signed.

As stated before THE PLAN has advanced beyond expectations and RE's status is now much improved. In order to reach the goals of improved cash holdings and higher current ratio, it is assumed in the approved budget from October 2014, that new financing - of ISK 10 billion in the year 2015 and ISK 23 billion during the following 5 years – will take place. The new financing is considered necessary partly because of new investments and partly to improve the cash position of The Company.

In 2015 RE renegotiated terms with Dexia. The schedule was originally to pay EUR 33.3 million in October 2015 (roughly ISK 4 billion). The new terms schedule new maturities for all Dexia's loans to RE. The arrangement lessens RE's need for new loans in 2015 and in new the repayment schedule the maturities are smoothed out. Weighted average maturity changes negligible and additional interest is unchanged.

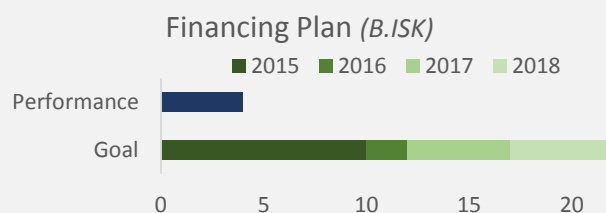
Treasury Management has introduced a financing plan with reference to the budget for 2015-2020, cautioning for changes. Both domestic and foreign financing is assume:

M ISK	2015	2016	2017	2018	Total
<b>Financing plan</b>	10.000	6.000	2.000	6.050	<b>23.050</b>

The result of the Dexia agreement entails that ISK 4 billion of the ISK 10 billion aim for new financing in 2015 has been reached.

RE's potential for financing are:

- Loans from institutional banks i.e. NIB, EIB and CEB.
- Domestic bond issued.
- Loans from commercial domestic and foreign banks.
- Bond selling in foreign financial markets.



Work has commenced on comparing the most favorable terms and type of financing for this year and the following 5 years. Every new borrowing demands a review scrutinizing present loan portfolio in the context of currency mix, interest rates, maturity and type (indexed/non-indexed).

The Board has approved a domestic bond issue up to four and a half billion ISK.

RE's future goal is to reach financial health by attaining:

- Net debt /EBITDA < 7 within a year and less than 5 going forward.
- Current ratio => 1

#### 4.1.1 Debt maturity profile and interest terms

RE has worked diligently towards reducing the company's debt.

From the beginning of THE PLAN RE has made loan installments of ISK 57.7 billion.

Weighted average interest rate for the present loan portfolio is 1.73% P.A. To be considered favorable terms

#### Goal:

- Decrease RE's debt ratio
- Keep interest coverage over 3.5X
- Positive interest differential

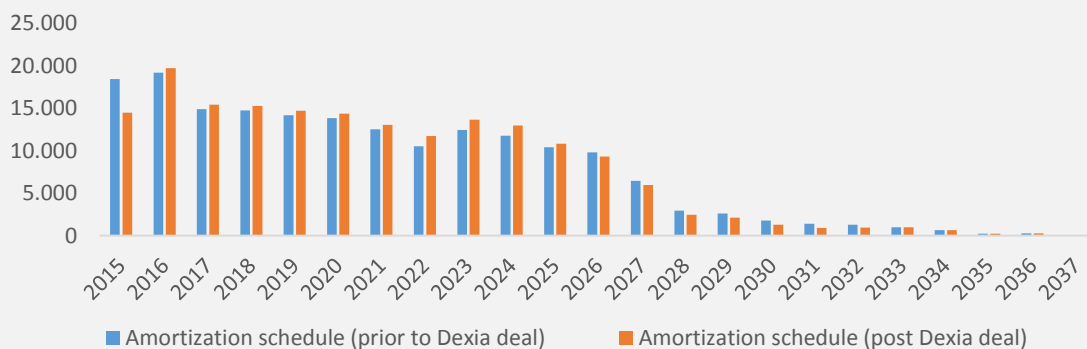
historically speaking and also compared to terms in the Icelandic market to-day. Regardless of low primary rates in Europe the equivalent rates in Iceland are maintained high. RE has worked diligently to secure low interest rate terms abroad.

RE's interest coverage is 5.6 at year end 2014 and the company's capacity to pay interest charges on debt is positive as stands out when comparing to benchmark companies in chapter 2. RE's goal is to bring the interest coverage value up to 3.5.

RE's equity ratio is 33.2% but according to the schedule for key ratios it should be maintained above 35%, after payments of dividends.

RE aims to pay off debt to the tune of ISK 15.8 billion on average for each of the following five years. Decisions on new financing's mix of type, currency and terms is still to be decided.

### RE's Debt Maturity Profile



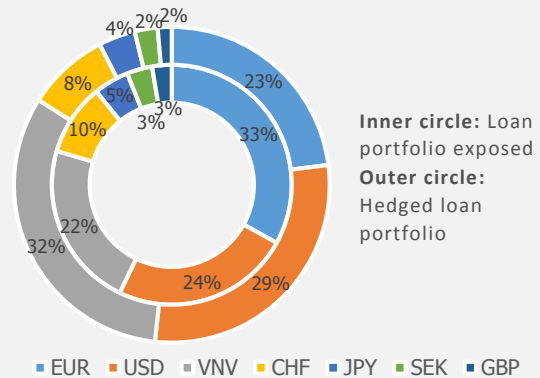
Installments for the year 2016 total about ISK 20 billion and ISK 15 billion the four following years as depicted in the graph above.

The Department of Risk Management has entered into hedging contracts and there by drastically reduced the imbalance in the currency mix of RE's portfolio. The effects of currency fluctuations have been secured for the next 5 years.

The picture to the right shows in the inner ring the status of the loan portfolio not secured but the outer ring expresses how the hedging reduce the weight of currencies other than the USD and ISK (VNV).

Further clarifications may be found in chapter 5.1.1 Currency risk

### Loan portfolio hedged and exposed



## 5 Risk Management

RE's board has decided on a policy -to be reviewed annually - for Treasury and Risk Management. The Board's policy is that risk shall be observed in all RE's operations to support responsible and efficient decision making and governance. Policy for Treasury and Risk Management gives an overview and pinpoints the primary goals of the board in this respect. It also defines the main types of risk, criteria to evaluate the most important along with defining the main methods, goals and boundaries to be observed in daily hedging operations. One major pillar of the policy for Treasury and Risk Management policies is the mapping of the risk factors which play a significant role in this context, measure their weight and define applicable boundaries with which to manage.

RISK IN REYKJAVIK ENERGY'S BUSINESS					
Risk	Core risk	Financial risk			Operational risk
		Market risk	Liquidity risk	Counter party risk	
Definition	<p><b>Always connected to RE's core business</b></p> <p><i>Risk connected to heat, water, electricity, and sewage and fiber network.</i></p> <p><i>Risk due to power production and sales</i></p> <p><i>Competition in core business.</i></p>	<p><b>The effect of market fluctuation on RE's financial status.</b></p> <p><i>Foreign exchange rates</i></p> <p><i>Foreign and local interest rates</i></p> <p><i>CPI</i></p> <p><i>Interest spread</i></p> <p><i>Aluminum price</i></p>	<p><b>RE's ability to pay debts and grab opportunities</b></p> <p><i>Operating expenses</i></p> <p><i>Amortizations</i></p> <p><i>Investments</i></p> <p><i>Asset portfolio</i></p>	<p><b>Effect from possible from RE's customers defaults</b></p> <p><i>Size of individual customers</i></p> <p><i>Consolidated risk of customers</i></p> <p><i>Collection and resource recovery</i></p>	<p><b>Effect from crisis and unpredictable damage on RE's finance stage.</b></p> <p><i>Breakdowns in distribution-, control- or monitoring systems.</i></p> <p><i>Errors and fraud.</i></p> <p><i>Regulatory and legal actions.</i></p> <p><i>Natural disasters</i></p> <p><i>Reputation</i></p>
Goal	<p><b>Core risk is connected to RE's core business.</b></p>	<p><b>Financial risk shall be managed.</b></p>			<p><b>Reduce operational risk.</b></p>

RE's Risk Management activities consists in an active financial risk management in order to dampen effects of fluctuations of risk factors or to support stable pricing of products going forward. Risk Management also monitors on and consults on risk issues of the company's finances and operations.

Risk Management oversees the monthly meetings of The Risk Council. There the main changes affecting the company and its status are reviewed considering the most important risks the company faces and the pertinent decisions made.

### 5.1 Market Risk

Market risk is defined as the risk resulting from price changes in the market place. In RE's situation changes in exchange rate of currencies, price of aluminum and interest rates and how these influence the company's performance and financial status. These risk factors can be managed but with vastly different costs and the benefits of hedging taking into account the costs need to be evaluated in each instance.

#### Goal:

To mitigate possible financial loss for the company caused by changes on aluminum market price, foreign exchange rates, change in interest rates or by operating accidents.

#### 5.1.1 Currency risk

Since The Crash 2008 and in fact also before that, the currency risk has been the company's greatest singular risk. The imbalance between debt in foreign currencies and RE's assets almost all nominated in ISK resulted in the company's debt doubling in ISK when the Icelandic currency depreciated.

The disparity in currency mix between the company's revenue and debt resulted in divergence between the increase in revenue and the cost of servicing debt.

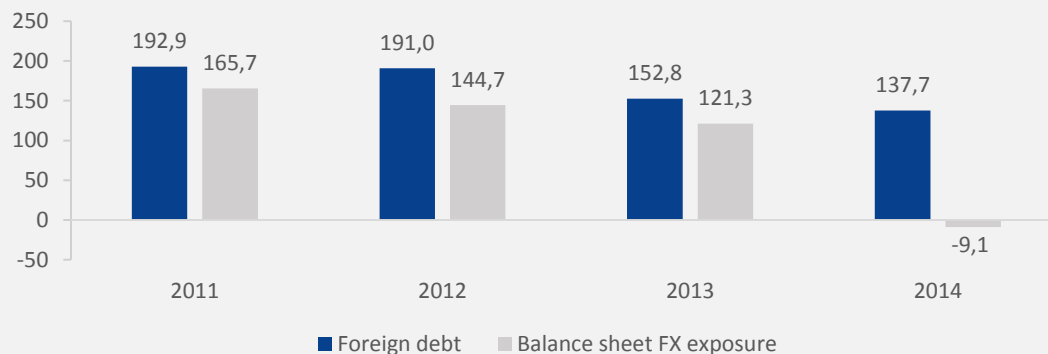
### Economic risk

From the unbundling of RE created an opportunity to reduce currency risk by having the new subsidiary Our Nature (ON) to have USD as its operating currency. Though this change did not affect the accounts in real terms, the consolidated accounts after the change better reflect the reality that ON's assets create revenue in foreign currency to be set against debt. Although the accounting change does not affect the accounts in real terms it does result in improvement of the company's ratios improve and may therefore have a positive impression on lenders and ratings agencies leading to real benefits for the company.

The currency imbalance of RE's consolidated accounts broken down currency by currency depicts assets in ISK and USD and debt mainly in EUR – when taking into account hedging contracts. Therefore there now exists a disparity in the company balance. Especially among these three currencies.

Thresholds for these imbalances as defined by the company's Treasury and Risk policy are 20% of equity. At the beginning of the year 2014 the ratio was 179% dropping down to 1% at the end of the year. RE goal in Treasury and Risk Management is to always have on hand applicable currency to service outflow for at least the next six months. The aim is to minimize the effects of the fluctuations in the Forex markets on RE's finances and increase room for action in case of crisis.

Currency risk on balance sheet



### Cash flow risk

In order to reduce risk on cash-flow and finances RE has entered into hedging contracts with both domestic and foreign banks. Converting exposure in foreign currencies into ISK exposure. These contracts are subject to the currency restrictions and an exemption from The Central Bank of Iceland is required. Since the year 2013 the contracts consist in an exchange of cash flow from EUR into indexed or non-indexed ISK. The contract with farthest maturity is into the year 2017.

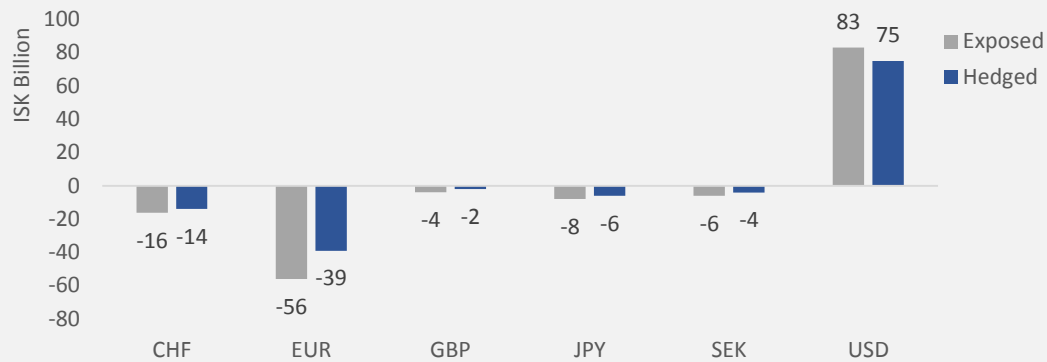
#### Goal:

Currency imbalance shall not exceed 20% of RE's equity. Further reduce imbalance between currencies in cash flow and RE's balance sheet.

Imbalances between different foreign currencies were reduced by swaps into USD as RE's income other than in ISK is in USD. Whereas debt is in various foreign currencies though mainly in EUR, finding foreign counterparts for these contracts has been relatively easy.

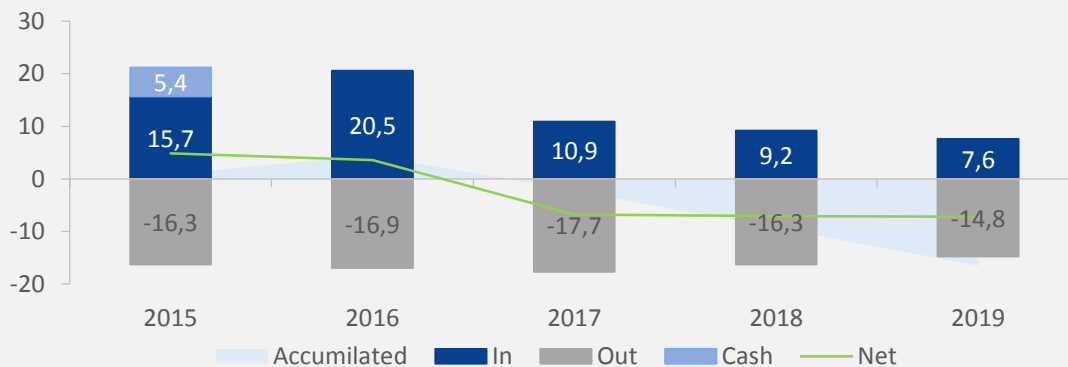
The goal is to reduce risk stemming from foreign currencies affecting RE's finances. Also to reduce debt nominated in EUR as there are almost no assets or revenue in EUR to meet this debt.

### Foreign currency risk by currency



At 2014 year end deposits and expected inflow compiled were more than sufficient to meet the outflow and the capacity to meet all outflow for the next four year was short only by ISK 5.5 billion. At year end 2016 inflow of USD from a bond is expected. Details can be found in chapter 5.2 Counterparty Risk.

### Foreign exchange cash flow



### Prospects and Scenarios on Lifting Capital Controls

Changes in the exchange rate of the ISK is the biggest factor affecting the company's foreign currency risk. Ahead is the lifting of capital controls creating uncertainty in ISK exchange rate going forward. This calls for relevant preparations by RE. Changes in exchange rates between the EUR and the USD affect the company considerably.

Therefore RE will work towards an equilibrium between inflows and outflows with swaps and forward contracts of the relevant currencies thus reducing currency risk.

Currency restrictions have been around since The Crash 2008 voices have repeatedly been raised to abolish them. Now it looks as though that there will be some news in that respect. RE has therefore designed four scenarios resulting from their abolition. The designs were based on scenarios published by KPMG.

Assessing the developments of macro and market indicators following the lifting of restrictions are difficult. A sharp weakening of the ISK is to be expected following fast lifting of the restrictions. To be followed by resulting inflation due to increased prices of imported goods. Furthermore conditions with Iceland's trading partners while the abolishing is being executed matters e.g. commodity prices may increase given increase in GNP. The scenarios depict both slow and fast abolishing of the restrictions also considering improved or reduced economic activity of Iceland's trading partners.

The result of the most pessimistic scenario, - fast lifting of restrictions and simultaneous a contraction hitting the trading partners - shows during the following year, a rise of EUR by 55%, purchasing power is reduced by 10% and inflation will be 12%. Scenario 4 is equivalent of a new economic crash.

### Cash position scenarios



The graphs above show that the scenario of rapid lifting of restrictions along with contraction (of the economies of Iceland's) trading partners has greatest negative influence on RE's cash position. However it should be taken into account that in designing the scenarios it was assumed there would be a significant and lasting negative impact on the ISK rate already in the year 2015. In spite of this development to take place the cash position of RE would be positive until 2019. Should this scenario develop RE will have time to react. The scenarios does not include the company's reactions, with i.e. selling of assets or strengthening of cash balances (by other means). It should be kept in mind that the assumption that all planned loans will come to fruition as foreseen. Should the environmental factors affect the company's ability to secure these loans negatively, the cash position would weaken.

Assumption for the different scenarios are to be found in Annex C.

### 5.1.2 Aluminum price risk

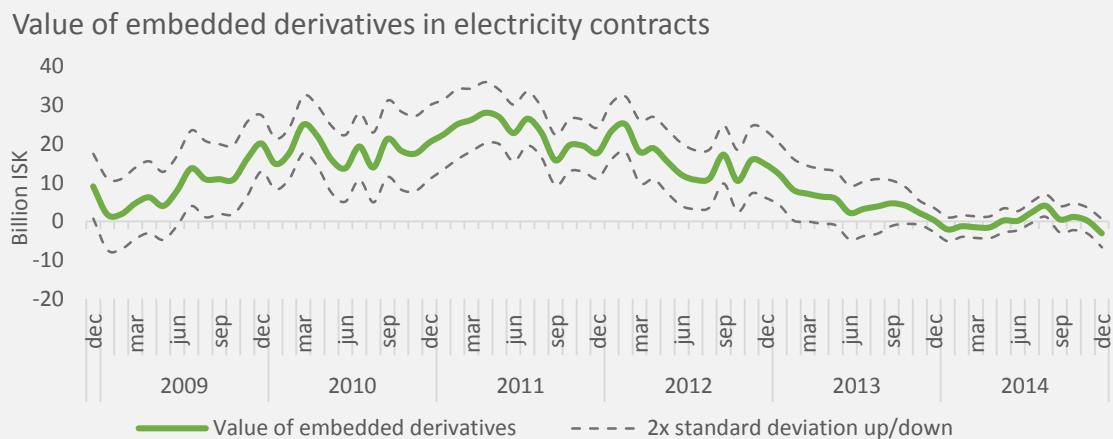
RE's revenue of sale of electricity is partly linked to aluminum prices. The reason being long term electricity contracts which values are accounted for on the company's balance sheet. RE also owns a bond which value is linked to aluminum prices. RE's contracts to heavy industry for sale of electricity left the company with exposure to fluctuations in aluminum prices. Even though commodity prices affect the operations of the power plants to only a small degree. On the other hand is the solidity of the counter partner reducing the likelihood of non-payment and their risk to aluminum price changes is somewhat limited.

### Economic risk

Due to the electricity contracts (to heavy industry) an embedded derivative is accounted for on the company's balance sheet. The value of which can fluctuate greatly. The value of the derivative is the difference between the discounted value of expected future cash flow calculated according to future prices of aluminum, on one hand on settlement date and on the other hand on contract date. The aluminum prices, interest rates and forex rates affect the value of the derivative. The difficulty in neutralizing this risk lies in it being hard to hedge more than few years into the future against changes in aluminum prices where as embedded derivatives are calculated according to maturity of the longer lasting electricity contracts. The longest lasting electricity contract matures in 2036. Many of electricity delivery contracts will come to maturity in the next few years. Therefore it may be assumed that the value of embedded derivatives linked to these contracts will diminish and there

fluctuations will decrease. The power of the dampening affect will increase as time progresses and underlying quantity decreases.

The following graph showing the value from year-end 2008 of the embedded derivatives linked to the electricity contracts (solid line) fluctuates considerably over the period. The broken lines show a running 12 month standard deviation of the value of the embedded derivatives, above and below. As can clearly be seen the gap between the broken lines narrows as time progresses pointing to a dampening of fluctuations in value. Factors affecting the fluctuations are aluminum prices, interest rates and currency exchange rates.



The table below shows how the value of embedded derivatives in electricity contracts change when aluminum prices shift 10% up or down, superimposed with 100bps (1%) increase or decrease in running interest rates used to evaluate.

Sensitivity analysis on value of embedded derivatives in millions of ISK as of 12/31/2014.

		Aluminum price		
		-10%	0%	10%
Interest	-1% bps	-7.078	-16.5	7.045
	0 bps	-6.655	0	6.655
	+1% bps	-6.259	25.7	6.313

The table clearly shows the little effect of interest against the effect of aluminum prices.

### Cash flow risk

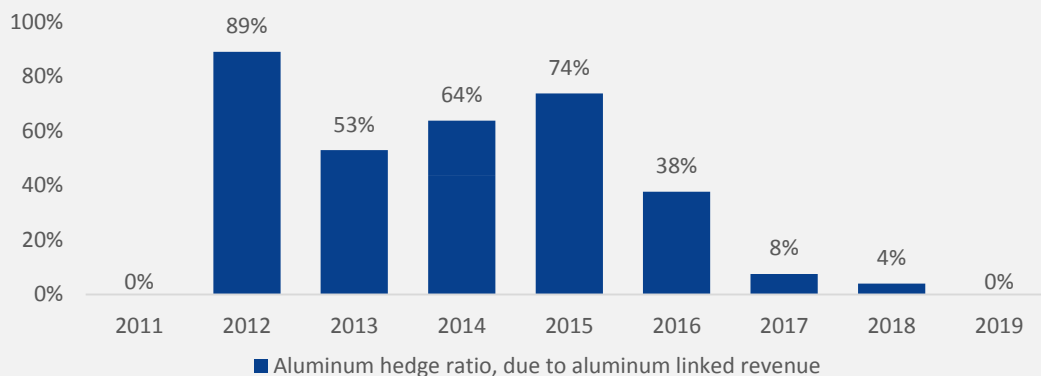
Around 15% of the revenue of the consolidated company are linked to aluminum prices. To minimize the effect of fluctuations in aluminum prices on the revenue the company has lately entered into hedging contracts with foreign banks. RE has been successful in finding a counterparty enabling a hedging up to five years into the future. Last year RE's Risk Counsel agreed on upper and lower limits for aluminum hedging that may be different for different time periods. Thus a comprehensible policy has been set forth regarding aluminum price hedging with-in Treasury and Risk Policy. As the aim of risk hedging is to dampen fluctuations and improve the predictability of the company's cash flow.

**Goal:**  
Keep hedge ratios at every point in time within approved upper and lower limits.

From year-end 2013 hedging fluctuations of aluminum prices have been greatly increased. This may be seen in the following image. Prior to this point in time the company had great difficulty to hedge

(against risk) as there were no counterparties to be found that were willing to enter into contract for more than one year.

### Aluminum hedge ratio



### Historical trends and prospects

The price of aluminum in three months future contracts has decreased for the last 4 years. At year-end 2013 and at the first months of 2014 it seemed that a rally was developing but now those price increases have been reversed.

#### Historical aluminum prices and moving average



The graph above shows a running 100 week average aluminum prices and a 30 week price average. The trend for average prices over 100 weeks show a decrease as does the trend for 30 weeks in spite of temporary turnaround from fall of 2013 into 2014.

### 5.1.3 Interest risk

Most of RE's loans have a floating interest rate benchmarked against i.e. LIBOR, STIBOR and EURIBOR. Due to risk hedging policies and favorable market conditions a large part of loans with floating interest rates has been converted into fixed rates through interest rate and currency swaps. Interest rates also affect the value of RE's various assets and obligations accounted for at fair value according to IFRS.

### Economic risk

Economic risk linked to interest rates stems from the effect changes in the rate have on fair value of financial assets and obligations. Bonds, risk hedge contracts and embedded derivatives of electricity contracts are examples of items accounted for at fair value.



The following table shows in millions ISK the effects of 1% increase or decrease in interest rates on the fair value of financial assets and obligations. Tax effects are ignored.

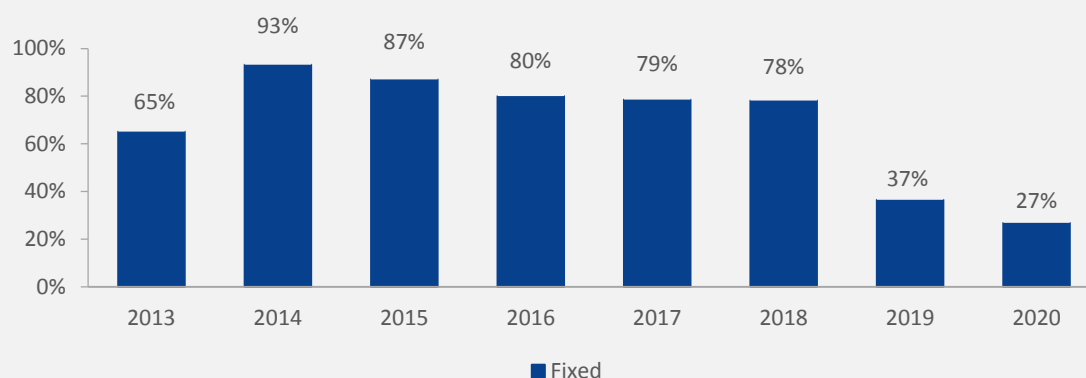
<b>Sensitivity of financial asset's fair value on RE's balance sheet</b>		
<b>31.12.2014</b>	<b>Interest increase</b>	<b>Interest decrease</b>
<b>M ISK</b>	<b>+1%</b>	<b>-1%</b>
Embedded derivatives	25.661	-16.496
Other financial assets	-151.315	155.532
Hedge contracts	2.887.241	-3.018.564
<b>Total</b>	<b>2.761.587</b>	<b>-2.879.528</b>

Observe that obligations are accounted for at nominal amount but not fair value. Therefore interest rate does not have a direct effect on the accounting value of obligations. RE is on the other hand obliged to account for hedging contracts at fair value resulting in a risk appearing on the balance sheet due to changes in their fair value. Should obligations also be accounted for at fair value the changes in hedge contracts would be offset by changes in value for obligations.

### Cash flow risk

A large part of RE's loans carry floating interest rates. In order to dampen fluctuations in cash flow and increase the predictability of cash flow in the coming years a large part of the floating interest payments has been converted into fixed interest. Many of these contracts also include currency swaps aiming to smoothing cash flow between currencies.

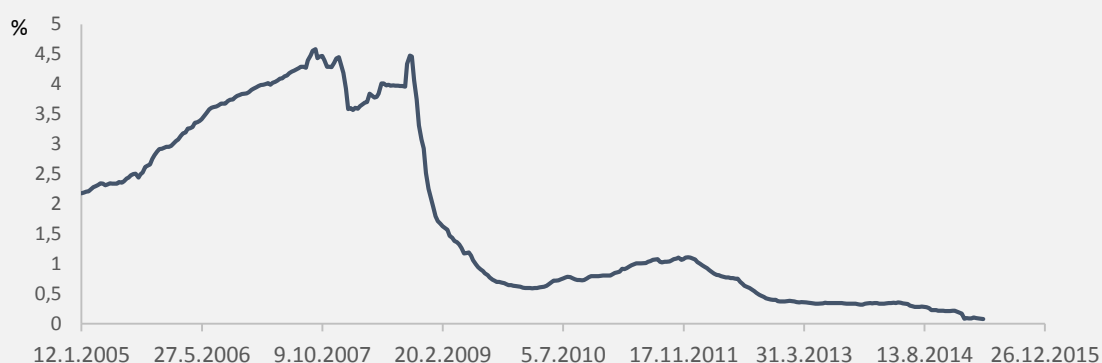
Fixed interest rates ratio



### Historical trends and prospects

As the following image shows interest on the international markets have declined considerably since the crash of 2008. This is due to interventions of the various central banks around the world in their effort to improve economic activities. The image also shows a weighted average floating interest benchmarks in accordance with RE's portfolio of debt. Whereas interest rates are at a historical low RE has seized upon utilizing the opportunity to lock in interest rates for up to five years.

## Historical floating interest rates according to RE's debt portfolio



### 5.1.4 Price Indexation Risk

Risk of price changes has roots in the disparity between price indexed assets and obligations and related cash flow. Discrepancy there between may result in price changes having a negative effect on performance and finances of the company. Part of RE's obligations is indexed linked and the consumer price index will therefore have direct effect on future cash flow. Offsetting this is the indexation of considerable part of RE's revenue.

#### Economic risk

Assessing to some extent the economic risk associated with price changes can be quite problematic. Part of RE's obligations are price indexed whereas assessing the value of assets is much more difficult. Capital assets are though assessed regularly and correlation to price changes is great.

#### Cash flow risk

Cash flow risk due to price indexation is easier to evaluate than economic risk due to the same price indexation. Part of RE's tariffs is updated regularly considering price changes. Also cash flow to indexed obligations is derived from the CPI. On the other hand it is not clear how price changes affect operating costs.

### 5.1.5 Risk of stocks and bonds

Risk from stocks and bonds in RE's portfolio stems from assets and as presented on the balance sheet, they vary in size. Effects on cash flow have its main source in one bond. This bond can even affect the company's finances. The bond matures in December 2016 and the budget estimates a payment of ISK 9.5 billion. Embedded in this bond is a derivative of aluminum prices with both a floor and a ceiling, an upper and a lower cut-off. RE has received payments due regularly and its insurance cover is 130%.

## 5.2 Counter party risk

Counter party risk is defined as the counter party does not fulfill its obligations whether they be according to specific contracts or RE's customers in general. RE's largest counter party is Norðurál, (the aluminum smelter) at Grundartangi. Other counter parties are insignificant in comparison. It is desirable to increase the number of counterparties as contracts come to fruition in order to distribute counter party risk. New electricity contracts entered into recently are deemed to have a positive effect on counter party risk as each counter party weights less and less.

### Goal:

Reduce customer's consolidation by reducing large customers and increase the number of smaller customers.

RE's Bond-Asset which matures in December 2016 is expected to deliver a payment to RE of ISK 9.5 billion. The underlying value is estimated considerably higher and the insurance coverage stands at 130%, now that interest payments on the bond have been paid.

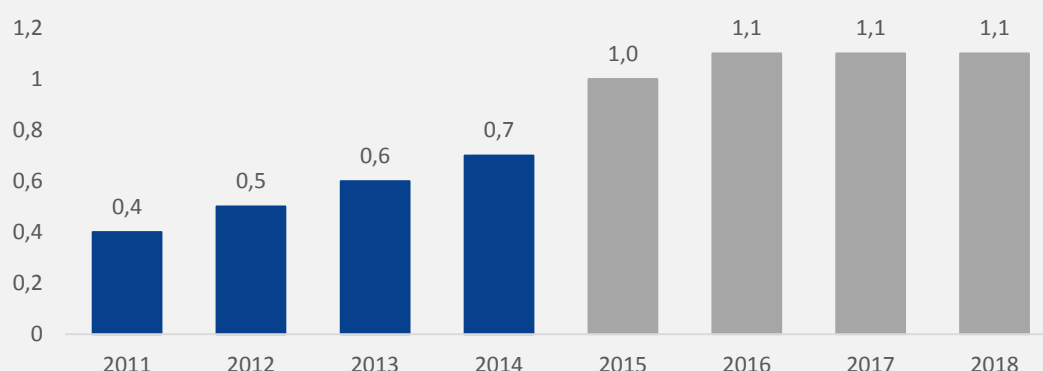
## 5.3 Liquidity risk

Strong cash holdings are the best defense against adverse operational events. A strong cash position also facilitates access to markets and strengthens the credit rating of the company thus improving its terms (of financing). RE has in the last few months and years significantly improved its cash holding position. Current ratio has significantly been strengthened along with reduced capital repayment schedule reflected in larger cash holding as the following image represents. In operating a company it becomes useful to have on hand funds to cover continuously the short term obligations. This holds true even though a firm's cash flow is solid. The aim is to keep the current ratio through the following year above one in addition to fulfilling The Treasury and Risk Policies requirements that cash on hand is above 100% for all periods running from one month to three years. Expected cash on hand ratio is observed regularly and presented in the monthly risk report.

### Goal:

Current ratio > 1  
Cash ratio above 100% for all periods, from 1 month to 3 years.<sup>2</sup>

Current ratio



The importance of a strong cash position is not to be underestimated especially in the light of the cash flow risk covered in the prior chapters. The cash position appears to be vulnerable to large market changes, i.e. aluminum prices, lifting of capital controls or delinquency of large counter parts.

Coinciding with improved cash position the need for active cash management has increased. As the importance of cognizant decisions on expected financial decisions regarding their risk as to stocks and bonds.

For this purpose an investment framework covering investment of cash and restricts authorization to invest in risky financial instruments. A more elaborate cover of cash management can be found in Chapter 3.

## 5.4 Core Risk

The core risk the risk connected to the core business of RE. The core risk is shaped by RE's long term policy and is beyond day-to-day risk management but is an imperative issue for deciding policies.

## 5.5 Operational Risk

Executives of the consolidated company analyzed the operational risks for the year 2014.

The analysis observes the risk incidences presented at a meeting with the internal auditor in fall of 2013. Executives of the different operational entities are responsible for the risk analysis of their units and the CEO is responsible for risk analysis for the consolidated group. RE's experts i.e. in the field of safety, environment and quality control reviewed the assessment of the risks.

### Goal:

Reduce by a fourth the number of most significant frames in consolidated RE's risk matrix.

Results on assessment of RE's operational risk for 2014 show that most of risk moments fall with-in the limits put forth by RE's Risk Council. Still there are a few risk moments that need further looking into.

Operational risks are presented in risk matrixes for each company where estimated risks are arranged according to financial impact and likelihood of occurrence. Also the arrangement with-in the risk matrix is subject to impact of the incident and probability of occurrence. All risks of the group are then accumulated into one risk matrix.

Now when the operational risks are available the next step is to find solutions that will reduce the risks by lowering its probability of occurrence, diminish its impact or both. There exists the possibility to insure against revenue loss or a customer's delinquency. Other avenues are open to reduce operational risks e.g. improve reliability, increase control and reviews also improve response and emergency facilities.

Goal for 2015:

- Reduce by a fourth the number of most significant frames in consolidated RE's risk matrix.

## 5.6 Insurance

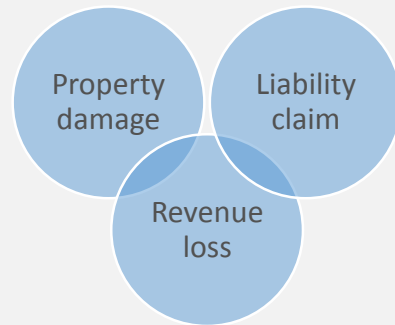
RE's insurance contracts cover loss of assets and liability damage. Among assets covered are ON's geothermal plants. RE's distribution systems and current assets are partly covered. RE also insures the group against liability.

RE has up to the present not insured against revenue loss. In 2015 RE will evaluate whether it is worthwhile to insure against revenue loss in specific risk instances. The evaluation will especially address risk moments of ON.

RE has in 2014 had considerable achievements in securing lower insurance premiums. These are the greatest strides:

1. At year-end 2013 RE's deductibles were increased in plant insurance contracts. This change brought a reduction on premium of ISK 25 million annually.
2. At mid-year 2014 RE engaged a new insurance broker. Premium of the new plant insurance contracts at year-end 2014 was reduced by ISK 25 million by this change. Bringing the total reduction to ISK 50 million annually.
3. RE insures against liability with an Icelandic insurance company. In 2014 RE managed to lower premiums by increasing deductibles. Lower premiums are also due to lower insurance claim.
4. In 2014 preparations were made to form a subsidiary insurance company. First on this company's agenda would be to lower the premiums of insurances abroad.

**Goal:**  
Lower cost of insurance premiums abroad by forming an own insurance company.



Lost reputation  
Environmental damage  
Employees injury

Goals for 2015:

- Lower cost of insurance premiums abroad by founding a subsidiary insurance company.

## 6 Credit Rating

Credit rating is a significant factor in operations of firms in the international arena. Credit ratings purpose is to give lenders a neutral opinion of a company's status and its future prospects. Good credit rating improves a company's legitimacy, affects borrowing terms, interest terms in swaps, and access to funds and bolsters reputation.

RE's credit rating is given by the following credit rating agencies:

- Moody's since 2007 – public rating
- Fitch Ratings from December 2014 – first public rating in February 2015
- Reitun since 2010 – public rating for the Icelandic market.

The rating for The Icelandic state affect Icelandic companies to some extent as the credit rating of Icelandic firms cannot improve on The State. The status of The City of Reykjavik also affects RE's credit rating.

### Goal:

Increase Moody's rating by one notch.  
Change Fitch Ratings prospects from stable to positive.  
Increase Reitun's rating.

	Reykjavik Energy			The Republic of Iceland	
Rating agencies	Moody's	Fitch Ratings	Reitun	Moody's	Fitch Ratings
Long term	B1	BB <sup>-</sup>	iA1	Baa3	BBB
Short term				P-3	F3
Prospects	Positive	Stable	Positive	Stable	Stable
Issue date	Dec 2014	Dec 2014	May 2015	Jul 2014	Aug 2014

Comparison between the ratings of Moody and Fitch Ratings, comparing their rating schedules shows that RE's basic rating by Fitch Ratings is two notches above Moody's rating, taking into account the rating of the owners.

### Moody's credit rating

RE had a Mood's credit rating in the second bracket in 2007 but as a result of the crash the rating dropped first to A1, and then to Ba1 in 2009. Due to large debt and lack of cash-on hand in tandem with currency and aluminum price risk RE's credit rating finally settled at B1.

Development of Moody's credit rating for RE:

Issue date	Jan'07	Jul'08	Oct'08	Dec'08	Nov'09	Apr'10	Jul'11	Dec'13	Dec'14
Rating	AA2	AA2	A1	Baa1	Ba1	Ba1	B1	B1	B1
Prospects	Stable	Negative	Stable	Negative	Stable	Negative	Negative	Stable	Positive

Moody's credit rating for RE has - in spite of risk reducing and improved (financial) ratios – not improved but outlook has been changed from stable to positive. The rating will be reviewed in September 2015. Moody has complimented RE's executives on their steadfastness in implementing THE PLAN but points out that RE is still exposed to considerable currency risk, especially long term, but also that repayment capacity has strengthened greatly as a result of effective Treasury and Risk Management.

Positive implications for RE's credit rating:

- RE continues to hedge against fluctuations in the commodity and forex markets

- RE manage open access to financial markets, especially regarding new loans.
- Expectation for FFO/Debt ratio to exceed 10% going forward.
- There will be no change in owners support i.e. regarding guarantees.

Negative implications for RE's credit rating:

- Cash-on-hand and/or access to short term financing worsens.
- Delays in results from THE PLAN or unexpected increase in operating expenses with new financing needs.
- RE's needs in domestic and foreign capital markets are not being met.

### Fitch Rating's credit rating

There are no historical data available on Fitch Rating's classification as their first rating was published in spring of 2014. Fitch Ratings was a notch above Moody's and the basic rating two notches above.

The rating considers especially the following:

- The operations are restricted to the Icelandic market.
- Aluminum price risk.
- Cash flow vulnerability to forex risk.
- Risk due to high debt ratio.
- Solid revenue.
- Scope for tariff increases.
- Strong FFO interest coverage.
- In comparison to other European countries regulation and control is favorable for companies in concessional environment.

Positive implications for RE's credit rating:

- Continued link between tariffs and general prices.
- Continued results above (former) budgets resulting in FFO interest coverage climbing above 5 times and leading to Debt/FFO below 6 times.
- Increased support from owners consisting in unconditional guarantees and further delays in dividend payments.
- Cash on hand continues to improve.

Negative implications for RE's credit rating:

- Constrictions on tariff increases, increased investments, delinquency on RE's bond resulting in Debt/FFO rises above 7 times and FFO interest coverage drops below 4 times going forward.
- Diminishing support from owners e.g. dividend payments.
- Fitch Ratings addresses political risk especially:
  - o Politically appointed board may lead to onerous decisions regarding tariffs and investments.
  - o Decisions on tariffs and investments are not the sole responsibility of RE and are subject to governmental decisions too.

### Reitun's credit rating

Historical credit ratings by Reitun:

Issue date	Nov'10	Nov'11	Jun'12	Oct'13	Dec'13	Jun'14	Jan'15	May'15
<b>Rating</b>	i.BBB1	i.BBB1	i.BBB1	i.BBB1	i.BBB1	i.A3	i.A3	i.A1
<b>Prospects</b>	<i>Stable</i>	<i>Stable</i>	<i>Stable</i>	<i>Positive</i>	<i>Positive</i>	<i>Stable</i>	<i>Positive</i>	<i>Stable</i>

Reitun is an Icelandic credit rating company taking as its points of reference the most trustworthy domestic borrower and the risks facing local investors. The most trustworthy domestic borrower. The Icelandic State, has a credit rating of i.AAA.

Premises for improved rating:

- Improved financial position.
- Reducing of obligation along with improved debt ratio and reduced risk.
- Improvement of The City of Reykjavik's credit rating will Improve Consolidated RE's rating.

Premises for lower rating

- Should THE PLAN not be fulfilled.
- Should RE loose it's credit lines.
- Unexpected events in RE's operations or significant negative developments in the economy or in the markets.

### **Summary of the credit rating analysis**

Evidence points towards strengthening of RE's credit rating in the near future as favorable outcomes from THE PLAN are realized. Also foreseeable positive effect of the unbundling and more hedging against RE's greatest risks. Already the quality of Moody's rating has been changed from stable to positive and Reitan has raised RE's rating two notches.

Moody's mentions that operations must continue to be economical and revenue steady. RE's debt ratio is still too high and this is a significant factor in the rating agencies evaluations.

In spite of burdensome financial position after the crash of the Icelandic banking sector in 2008 – when foreign currency nominated debt doubled in ISK nomination – RE never defaulted on an obligation nor did the owners guarantees come into play.



## 7 Annex A: Ratios and multiples of commercial banks

Financial strength of commercial banks can be assessed from following financial ratios. The multiples below are an assessment based on each counterparty annual reports:

	<b>Landsbankinn</b>	<b>Islandsbanki</b>	<b>Arion Bank</b>	<b>MP Bank</b>
	2014 ISKm	2014 ISKm	2014 ISKm	2014 ISKm
Capital Adequacy Ratio (CAR - Tier 1 ratio)	29.5%	29.60%	26.30%	17.40%
Risk Weighted Assets (RWA)	79.54%	76.27%	74.50%	54.00%
Equity Ratio	23.59	20.35%	17.37%	11.34%
ROE	12.50%	12.8%	18.60%	6%
LCR (min 70%)	131%	130%	137%	133%
LCR - FX (min 100%)	614%	617%	254%	272%
> 90 days past due	2.00%	2.5%	3.60%	0.94%
Loan over deposits ratio	130%	121%	142%	76%
Ownership of the banks (Republic of Iceland)	98%	5%	13%	0%
Loans	812.290	725.841	771.524	43.748
Equity	250.803	185.487	162.212	5.597
Credit rating S&P	BB+ Positive	BB+ Positive	BB+ Positive	NA

More detailed definition for the multiples can be found in the table below:

<b>Multiples</b>	<b>Definition</b>
Capital Adequacy Ratio (CAR - Tier 1 ratio)	<i>Is the ratio of a bank's capital to its risk weighted assets. Total capital ratio must be no lower than 8%. Regulators implement supplementary capital requirements on each bank after assessment based on their risk.</i>
Risk Weighted Assets (RWA)	<i>Risk weighted assets over total asset ratio.</i>
Equity Ratio	<i>Equity to total assets</i>
ROE	<i>Return on equity = net income/ equity</i>
LCR (min 70%)	<i>Liquidity Coverage ratio defines how much liquid assets have to be held by financial institutions to meet possible outflow of short term liabilities within 30 days of crisis.</i>
LCR - FX (min 100%)	<i>Liquidity Coverage ratio including only forex assets and possible outflow.</i>
> 90 days past due	<i>Default ratio – indicates the quality of the loan portfolio.</i>
Loan over deposits ratio	<i>Loans to deposit</i>
Ownership of the banks	<i>The debate on the Republic's ownership of the banks is contradictory and gives perhaps an inaccurate description of the banks financial position.</i>
Loans	<i>Liabilities</i>
Equity	<i>Total equity</i>
<b>S&amp;P Credit rating</b>	<i>Standard and Paul's (S&amp;P) credit rating</i>

## 8 Annex B: Multiples

More detailed definition on the financial ratios used to manage the financial strength of the company and to benchmark with other companies in the energy field.

Ratios	Goal	Equation	Definition
Current Ratio	> 1	Current assets/ Current liabilities	Current ratio is a financial ratio that measures whether or not a firm has enough resources to pay its debts over the next 12 months. It compares a firm's current assets to its current liabilities.
Equity ratio	> 35%	Equity / Total assets	Equity ratio measures the proportion of the total assets that are financed by stockholders and not creditors, indicates the level of leverage used by a company.
Net Debt / Cash from operation	< 5	Net Debt / Cash from operation	Measures how many years it will take the company to repay its debts.
FFO interest coverage	> 3.5	(FFO + interest payment) / interest payment	The interest coverage ratio is a measure of a company's ability to meet its interest payments.
FCF / Net Debt	> 0%	FCF / Net Debt	Compares the company's operating cash flow to its total debt. It provides an indication of company's ability to cover total debt with its yearly cash flow from operations. The higher the ratio the better the company's ability to carry its total debt.

## 9 Annex C: Scenarios assumptions

<b>Baseline:</b>	According to economic forecast. July 2014.								
<b>Scenario 1:</b>	Lifting of capital controls - Slow lifting of capital controls, growth with Iceland's main trading partners.								
<b>Scenario 2:</b>	Slow lifting of capital controls, contraction with Iceland's main trading partners.								
<b>Scenario 3:</b>	Rapid lifting of capital controls, growth with Iceland's main trading partners.								
<b>Scenario 4:</b>	Rapid lifting of capital controls, contraction with Iceland's main trading partners.								
<b>Inflation (CPI)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Baseline: :	3%	3%	3%	3%	3%	3%	3%	3%	3%
Scenario 1:	3%	4%	4%	4%	7%	10%	7%	5%	4%
Scenario 2:	3%	5%	5%	5%	5%	5%	4%	4%	4%
Scenario 3:	3%	12%	13%	7%	4%	3%	3%	3%	3%
Scenario 4:	3%	12%	13%	7%	4%	3%	3%	3%	3%
<b>EUR</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Baseline:	150.39	153.10	154.02	154.02	154.02	154.02	154.02	154.02	154.02
Scenario 1:	150.39	154.98	154.98	154.98	154.98	154.98	154.98	154.98	154.98
Scenario 2:	150.39	154.90	158.00	161.16	164.38	166.03	166.03	166.03	166.03
Scenario 3:	150.39	233.10	237.77	227.07	219.12	212.55	212.55	212.55	212.55
Scenario 4:	150.39	233.10	237.77	225.88	214.58	208.15	208.15	208.15	208.15
<b>Purchasing power</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Baseline:	2%	2%	2%	2%	2%	1%	0%	0%	0%
Scenario 1:	2%	1%	1%	1%	1%	0%	0%	0%	0%
Scenario 2:	2%	0%	-1%	-1%	-1%	0%	0%	0%	0%
Scenario 3:	2%	-8%	-9%	-2%	0%	0%	0%	0%	0%
Scenario 4:	2%	-8%	-9%	-2%	2%	2%	2%	1%	1%
<b>AI price USD</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Baseline:	2.085	2.143	2.197	2.251	2.307	2.366	2.425	2.484	2.541
Scenario 1:	2.085	2.174	2.262	2.351	2.445	2.545	2.646	2.750	2.854
Scenario 2:	2.085	1.877	1.783	1.800	1.818	1.837	1.855	1.873	1.887
Scenario 3:	2.085	1.877	1.783	1.800	1.818	1.837	1.855	1.873	1.887
Scenario 4:	2.085	2.174	2.262	2.351	2.445	2.545	2.646	2.750	2.854