



BASELOAD CAPITAL GREEN BOND FRAMEWORK

2018-10-31



An Introduction to Baseload Capital

Heat power provides a constant source of renewable energy, independent of weather conditions or time of day. Today, 50% of the world's energy is wasted as low temperature heat. Industries such as steel, aluminum and shipping generate large amounts of heat that could be used as energy, but which is often released into the air. Furthermore, by drilling into the ground anywhere in the world, unlimited geothermal heat can be found. Geothermal energy refers to the heat energy stored in the bedrock of the earth's crust and it is one of few renewable energy baseload sources.

Most of the geothermal energy that is explored today is derived from reservoirs with temperatures above 150 degrees Celsius, which are primarily located in certain geographical regions along the edges of the tectonic plates. The reason for this is that higher temperature geothermal fluid has higher energy density and therefore puts less demand on high conversion efficiency to keep projects profitable. In 2011, a new technology enabling profitable heat power extraction at significantly lower temperatures was developed by Climeon AB ("Climeon"). Climeon is a clean-tech vendor, providing a technology that uses the energy in waste heat from industries and low-temperature geothermal heat to generate electricity. Climeon is a public company, listed on NASDAQ First North Stockholm. Climeon's low temperature levels allow delivery of up to 50% higher efficiencies than other solutions in the market, while creating a smaller CO₂ footprint during the manufacturing process.

The majority of the potential capacity of reachable geothermal energy lies within low temperature geothermal reservoirs. Such reservoirs are currently used mainly for district and industrial process heating due to the fact that traditional technology has not made electricity generation economically viable at such temperatures. With the introduction of Climeon's new technology, low-temperature geothermal energy can be used for electricity generation, and extraction is thus not limited to regions along the tectonic plates, which increases the addressable market.

To secure funding for Climeon's new technology and enable global scalability, Baseload Capital was founded in January 2018 by Gullspång Invest AB, Blue Seed AB and LMK Forward AB in cooperation with Climeon. Baseload Capital is today a specialized private investment entity investing solely in heat power. The company works globally to invest in heat power operators to give them the financial tools they need to build and operate renewable heat power plants. Baseload

Geothermal Energy is a Renewable Resource

Geothermal has a higher capacity factor than many other power sources. Unlike wind and solar resources, which are more dependent upon weather fluctuations and climate changes, geothermal resources are available 24 hours a day, 7 days a week. ¹

Closed Loop Geothermal Heat Power

Baseload Capital invests in so called binary power plants. Geothermal power plants on-line today fall into one of three categories of power cycles dry-steam, flash-steam, or binary – where only the first two are likely to emit any measurable amounts of greenhouse gas emissions. Binary power plants retain non-condensable gases in a closed loop system while the geothermal brine is being utilized for electricity production. Eventually, the geothermal fluid and contained gases are injected back into the reservoir. The result is near-zero emissions as the non-condensable gases are never released into the atmosphere. ²

¹ GEA and CRES [report on: Environmental Impacts of Geothermal Energy](#), 2014

² Geothermal Energy Association's [report on: Energy and Greenhouse Gas Emissions](#), Nov 2012



Capital’s strategy is to work with the most profitable projects and best in class technology, which currently is provided by Climeon. The heat power provider may change over time, but as long as Climeon delivers the best technology, Baseload Capital sees no need to change heat power operator.

Baseload Capital aims to be a catalyst for heat power expansion and invests in projects with existing or well documented resources. The company focuses on projects where it is possible to secure the land by acquisition or long term lease agreements and where power purchase agreements are available with a minimum term of 10 years. Baseload Capital works closely with local partners to facilitate each project and values partners with the relevant knowledge to develop projects in the local area. Baseload Capital takes an active role in the board of directors and oversees the entire project until the power plant is up and running. The company thereby adds value to heat power operators by structuring the financial set-up and taking an active role in the project development.

Baseload Capital believes in a green future where the energy comes from renewable sources. Society needs to continuously identify, develop and invest in new sources of renewable energy to meet the constantly growing demand while also reducing greenhouse gas emissions. Heat power plays an important role in this transition.

To highlight Baseload Capital’s dedication to promoting renewable energy, the company has decided to issue Green Bonds to finance its operations and have therefore created this Green Bond Framework.

The UN Sustainable Development Goals

Baseload Capital is eager to build meaningful energy solutions for the future. Contributing to a sustainable world for future generations has been a key driver for the company since inception. Baseload Capital supports the United Nations Sustainable Development Goals and has identified three of them as particularly relevant for their operations.

Goal 7: Affordable and Clean Energy

Enabling an affordable and clean energy supply is at the core of Baseload Capital’s business strategy.

Goal 13: Climate Action

To ensure high quality and low environmental impact, project life-cycle assessments are part of Baseload Capital’s investment decision process. The company also encourages alignment with goal 13 among the entrepreneurs and suppliers involved in each project.

Goal 17: Partnerships for the Goals

Baseload Capital is collaborating with Heatpower.com who is actively working to raise awareness about heat power.





Green Bond Framework

This Green Bond Framework is aligned with the Green Bond Principles published in 2018 by the International Capital Markets Association and has been prepared in cooperation with DNB. Recognizing that the Green Bond market and best practices are still evolving, Baseload Capital will follow market developments and when deemed necessary make appropriate updates to this Green Bond Framework.

Use of Proceeds

Baseload Capital's Green Bonds provide funds for assets and projects with environmental benefits that promote the transition towards low-carbon and climate resilient growth. Only such assets and projects that comply with the list of Eligible Assets and Projects below are deemed eligible for Green Bond funding. Funds can be used for the financing of new assets and projects, as well as for refinancing of investments made within two years preceding the issue date of a Green Bond. Green Bonds will not be used to finance investments linked to fossil energy generation, nuclear energy generation, research and/or development within weapons and defense, mining, gambling or tobacco.

Eligible Assets and Projects

1. Geothermal energy: Investments in, or expenditures related to, the acquisition, expansion, renovation, construction, development and/or installation of new and existing geothermal energy facilities with direct emissions of less than 100g CO₂/kWh.

2. Waste heat to energy: Investments in power conversion of heat that comes as a byproduct from combustion engines on LNG fueled cargo ships and from industrial processes in, but not limited to, factories. *(Excluding non-LNG based maritime transportation and fossil fuel powered industrial processes as well as biomass power generation based on sources that compete with food production or that leads to depletion of carbon pools such as HCS and HCV forests³.)*

Process for Project Evaluation and Selection

Investments are evaluated and selected based on the above stated eligibility criteria by the executive management team in cooperation with the investment committee, where the latter consists of members of the board of directors. In accordance with Baseload Capital's internal investment policies, the company conducts research and technical studies when necessary to ensure projects comply with local market regulations.

Baseload Capital invests solely in heat power projects that meet the following criteria:

- 1. Resources:** Eligible projects should have existing or well documented resources with hot water in the range of 70-150 degrees Celsius.
- 2. Power purchase agreements:** Eligible projects should offer the possibility of power purchase agreements with a minimum term of 10 years.
- 3. Land and lease agreements:** Eligible projects should offer the possibility to secure the land by acquisition or a long term lease agreement.

³ High Carbon Stock (HCS) and High Conservation Value (HCV) forests as defined by the HCS Approach Steering Group Secretariat and the Forest Stewardship Council.



- 4. Partners:** Baseload Capital collaborates with local partners to facilitate each project and these partners should possess in-depth knowledge of the local area to ensure successful project development.

Management of Proceeds

The net proceeds of issued Green Bonds will be earmarked for assets and projects defined as eligible in this Green Bond Framework. Net proceeds from Green Bonds will be held in a separate bank account and internally tagged in an excel file. While awaiting allocation, net proceeds will be managed and invested according to the overall investment policy of Baseload Capital. If an asset or project financed by a Green Bond no longer qualifies as eligible during the life of the bond, the asset or project will be replaced by other assets or projects that meet the definitions set out in this Green Bond Framework. Baseload Capital's executive management team will ensure that the amount of identified eligible assets and projects exceeds the total amount of Green Bonds outstanding at all times.

Reporting

Baseload Capital will provide investors with a yearly report, detailing the progress of its Green Bonds. The report will include an allocation report as well as an impact report and be made available on the company's website.

Allocation report:

- A list of eligible assets and projects financed by Green Bonds
- Amounts invested in each category of eligible assets and projects and the amount of new financing versus refinancing
- An overview of unallocated proceeds

Impact reporting from 100% renewable energy sources built under each project:

- Electricity generation capacity (in MW)
- Electricity generation (in MWh)
- Electricity production (for facilities not yet in use an estimate of the capacity will be made)

External Review

Baseload Capital will obtain a second opinion from Sustainalytics to confirm the transparency of this Green Bond Framework and its alignment with the ICMA Green Bond Principles 2018. The second opinion will be made available on Baseload Capital's website together with this Green Bond Framework and other related Green Bond documents.