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# Second opinion on City of Gothenburg’s Green Bond framework

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## 1. Introduction and background

The aim of this second opinion is to carry out an independent assessment of the City of Gothenburg's green bond framework. The broader climate policy context is a situation where nations, cities/municipalities, organizations, companies, and citizens all have to move into a sustainable and low climate impact future to avoid significant climate changes and environmental impacts that could imply serious consequences for human living conditions and ecosystems.

A robust and efficient Green Bond framework should be based on standardized, compact, and transparent assessment rules and procedures. For the purpose of building confidence in green bond investments transparency is important, not only in terms of assessment and selection procedures, but also in terms of public availability of information about the projects deemed eligible for green bond funding, the actual investments done, and verification of performance.

## 2. Brief description of the green bond framework

Investments in green bonds will be transferred to a special account to support the City of Gothenburg's lending to eligible projects. Eligible projects are defined as project categories that in whole or part promote transition to low-carbon and climate resilient growth, as defined by the City of Gothenburg. Eligible projects include mitigation projects as well as adaptation projects, and up to 20% of investments also projects focused on sustainable development. Table 1 provides examples of eligible project categories.

<b>Project category</b>
Renewable energy
Bio fuel from forest waste
Energy efficiency
Smart grids
Waste management
Development of public transportation
More efficient water management
Sustainable housing
Development of new nature conservation areas

**Table 1. Examples of eligible project categories for green bond investments. Other project categories may also be acceptable.**

The selection of green bond projects is based on Swedish and EU law and the overall environmental strategy of the City of Gothenburg. The green bond eligible projects are selected in cooperation between the City of Gothenburg's Environment and Treasury Departments, before being finally approved by the City Council. For transparency the investors will receive an annual list of projects financed, more information about some selected project examples, and a summary of the City of Gothenburg's green bond development.

### **3. Assessment of the Green Bond framework**

In the following procedures, monitoring and verification, room for subjective assessment, possibility for external effects, rebound effects, and transparency are assessed.

#### **3.1 Procedures**

The procedure for selecting green bond projects is briefly outlined in City of Gothenburg (2013). This procedure is relatively transparent, reasonably simple, and standardized in terms of the roles of different actors and their responsibilities.

#### **3.2 Monitoring and verification**

A description of procedures for monitoring and verification of green bond investments is lacking in City of Gothenburg (2013). If monitoring and verification procedures exist they should be described in the document. In case such procedures are missing they should be developed to certify that projects perform as intended with respect to mitigation of greenhouse gas emissions, adaptation to climate change, or supporting sustainable development.

#### **3.3 Room for subjective assessment**

As always there is some room for subjective assessment of potential green bond investments, but this risk is reduced given the standardized selection procedure and involvement of two departments and the City Council.

#### **3.3 Possibility of external effects of projects**

Even reasonably "safe" green bond project types may lead to unwanted side effects under certain conditions. The best insurance against negative external effects is a selection procedure delimiting eligible projects to the likely best-performing project categories with respect to climate mitigation or adaptation, or for supporting sustainable development. This requirement is fulfilled in the case of the City of Gothenburg. However, the concern for external effects also underlines the importance of

including procedures for monitoring and verification, which make possible corrective action or termination of the investments in case major problems should occur.

### **3.5 Rebound effects**

Efficiency improvements may lead to rebound effects. When the cost of an activity is reduced there will be incentives to do more of the same activity. From the project categories in Table 1 an example is improved energy efficiency, which in part may lead to more energy use. Another example is public support schemes for renewable energy that increases energy supply, leads to a reduced energy price and thus more energy consumption. Such effects can never be entirely avoided. The recommendation is rather to be aware of such effects and possibly avoid green bond funding in projects where the risk of rebound effects is particularly high.

### **3.6 Transparency**

According to the City of Gothenburg's green bond procedure, an overview of green bond projects and more detailed information about some project examples will be available to investors. The extent to which such information will be publicly available is not clear, however. To build confidence in the green bond investments and the City of Gothenburg's activities in this regard it makes sense to develop a broader information strategy that enables information to interested citizens, business, organizations, public agencies, media and politicians.

## **4. Conclusions and possible improvements**

The green bond procedure of the City of Gothenburg has many features that enable selection of projects well suited for green bond funding, but there is a weakness in terms of sub-procedures for monitoring and verification. Furthermore a sub-procedure for making information about green bonds investments and performance publicly available (beyond investors) should be developed. In terms of eligible project categories, Table 2 illustrates that most of the example project types mentioned are likely well suited for green bond funding. A useful modification, however, could be to organize project categories according to the primary objective (i.e. mitigation, adaptation, or sustainable development). For some of the project categories more care should be taken since the risk of lower efficiency or unwanted side effects is higher, as indicated in Table 2.

<b>Project category</b>	<b>Primary objective</b>	<b>Likelihood of meeting objective</b>
Renewable energy	Mitigation	Good, but be aware of environmental impacts and possible rebound effects
Bio fuel from forest waste	Mitigation	Good, but observe more complex impacts in case of other bio fuels than forest waste
Energy efficiency	Mitigation	Good, but be aware of possible rebound effects
Smart grids	Mitigation	Medium. Some potential for more efficient power production and consumption
Waste management	Mitigation	Medium. Good practice waste management should recycle resources and reduce methane emissions
Development of public transportation	Mitigation	Good to medium. Potential for emission reduction depends on degree of urbanization, fuel type, and competition with private transportation
More efficient water management	Adaptation	Good. Important given climate change scenarios and higher frequency of extreme weather conditions. Limited effect on mitigation
Sustainable housing	Sustainable development. (Mitigation. Adaptation)	Good. Important for long-term sustainable development. Also of importance for mitigation and adaptation to climate change.
Development of new nature conservation areas	Sustainable development	Good, for sustainable development.

**Table 2. Project categories eligible for green bond funding, primary objectives, and likelihood of meeting these objectives.**

The City of Gothenburg (2013) states that other project categories than those mentioned in Table 1 might also be relevant. I recommend against such an open-ended approach due to the importance of having a well-defined and transparent list of suitable project categories. Rather all relevant project categories should be included in such a “positive” list.

**References**

City of Gothenburg (2013), Selection of eligible projects. Memo.