Green Assets Wallet

Phase one recap and phase two plans

第一阶段总结和第二阶段计划
Green bond issuance

**Barriers**

**For issuers**
- Administration
- Increased costs

**For investors**
- Time consuming
- Trust in issuers needed

**For the market**
- Avoided green issuance
- Developed market bias

**Opportunities**

**For issuers**
+ Automatisation
+ Lower costs

**For investors**
+ Efficient aggregation
+ Accessible and trusted information

**For the market**
+ Increased volume and diversity
+ Increased capital to green investments
Blockchain basics

- Distributed network - no centre
- Immutable data store
- A way of ensuring that all the data stores remain in sync
- A way of checking that committed transactions meet validity requirements
- Really good for recording shared information securely and transparently
The concept

Green bonds introduce additional **conditions** to the traditional relationship between issuer and investor.

The Green Assets Wallet platform **tracks** those conditions, **records** their fulfillment, and by doing so **strengthens** the relationship.
How it works

Issuer

Validator

Create project entity

Validation report slot

Impact report

Validation report (‘fills’ slot)

Project entity
Architecture

- Web apps for accessing the platform
- Signing architecture is centralised but transparent and with a clear upgrade path
- Postchain network made up of stakeholders in the green finance industry
1. Admin creates issuer/validator
2. Issuer creates framework
3. Issuer creates bonds
4. Issuer creates projects
5. Bonds and projects must have a pool
6. Issuer or certifier creates an impact report for a project
7. Issuer creates a validation report for a project
8. Validator validates validation report
Phase 2 goals

- More decentralised architecture
- Better APIs for ecosystem development
- More sophisticated impact statistics
- Better standards for impact reporting
- Better UX
- Consortium expansion -- public platform?
- Versioning, track record, and transparency
More decentralised, better ecosystem, direct signing

- Local private key storage
- Ecosystem of service providers
- Integrations with existing IT systems for batch transactions, automation
- Automated data input
Move to public?

- Ease of use
- Built in economic hosting incentives
- (Theoretically) better security
- Global scalability
- Cutting edge
- Better admin UX
Track record, versioning, transparency

- Implement row versioning in Postchain
- Design a visual metaphor for versioned information
- Expose the track record of issuer and validator actors to investors in an intuitive way
- More intensive UI/UX design
About impact

关于影响力

Issuer
发行方

Money in
投入金钱

Impact out
获得环境效益

Investor
投资者
# Impact reporting

<table>
<thead>
<tr>
<th>List of projects or areas financed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief description of the projects</td>
</tr>
<tr>
<td>Amounts allocated, share of green funding</td>
</tr>
<tr>
<td>Actual or expected impact, ideally quantitative indicators</td>
</tr>
<tr>
<td>Underlying methodology, assumptions, benchmarks</td>
</tr>
</tbody>
</table>

- **Bond**
- **Framework**
- **Issuer**
- **Pool**
- **Project**
- **Report**
Perfect world
理想状况

Transparent flow of funds from green bonds to green projects. Amounts are accessible, and roughly sum to zero. Some delineation between different sources of funding.

透明的资金流从绿色债券流入绿色项目。可获得金额，大致总和为零。不同资金来源之间有一定划分。
Allocating impact proportionally
按比例分配影响力

Invest 200 Money
投资200资金

Receive 300 Impact
获得300效益

400 Money
400资金

600 Impact
600效益
Baselines and reporting standards?

Average building of this type:
150 kWh/m²
Actual consumption:
0 kWh/m²

No building → New building

Actual consumption:
90 kWh/m²

Old building → New building

Actual consumption:
150 kWh/m²

How to achieve transparency?
Applying a grid factor
FRAMEWORK

**Green Commitments**

The Research Center to receive a "Green Building Index" (GB) rating

Proceeds from the SRI Green Sukuk will not be used to finance any fossil or nuclear power projects.


**Use of Proceeds Category**

Renewable energy

**Impact Report**

Report does not exist

**Files**

- USPSB Green Bond Framework...
- Second Opinion UIITM 020120...

**Sustainable Development Goals**

- SDG 7
- SDG 8
- SDG 13

**ASSOCIATED PROJECTS**

**Name**

Large Scale Solar Photovoltaic Power Plant
Vasakronan

Company Description
Vasakronan is the leading property company in Sweden. Our strategy is to focus on Sweden’s major regions: Stockholm, Uppsala, Gothenburg, Malmö and Lund.

FRAMEWORK

Green Commitments
New construction and major renovation of buildings owned and managed by subsidiaries of Vasakronan that have an energy performance at least 15% below the current building regulation (Swedish BBR code) and that have or will receive a certification of either LEED New Construction or Green Shell (minimum certification level “Platinum”), or BREEAM-SE (minimum certification level “Outstanding”).

Existing buildings owned and managed by subsidiaries of Vasakronan that have an energy performance under 100 kWh/m2p and either have a certification from the construction phase (as stated in section 1 above) that is not older than ten years or have received a LEED Existing Buildings: Operations & Maintenance certification (minimum certification level “Gold”).

Impact Report
Report does not exist

Use of Proceeds

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Energy efficiency</td>
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</tr>
<tr>
<td>Clean transportation</td>
<td></td>
</tr>
<tr>
<td>Sustainable water management</td>
<td></td>
</tr>
<tr>
<td>Climate change adaptation</td>
<td></td>
</tr>
<tr>
<td>Eco-efficient products, production technologies and processes</td>
<td></td>
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</table>

Sustainable Development Goals

SDG 9 | SDG 12 | SDG 13

FRAMEWORK IMPACT

Reporting on 1 projects
Out of 4 projects total 25%

<table>
<thead>
<tr>
<th>Energy Generation</th>
<th>Energy Avoidance</th>
<th>Energy Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 kWh</td>
<td>0 t/CO2e</td>
<td>0 kWh</td>
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</tbody>
</table>

Bonds

<table>
<thead>
<tr>
<th>Issuer/ISIN</th>
<th>Issue/Maturity Date</th>
<th>Volume</th>
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<tbody>
<tr>
<td>Vasakronan</td>
<td>18-11-2014</td>
<td>500000000 SEK</td>
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<tr>
<td>SE0006452553</td>
<td>18-11-2019</td>
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<td>19-03-2019</td>
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</table>
Large Scale Solar Photovoltaic Power Plant

PROJECT DESCRIPTION

ABOUT THE PROJECT
50 MWac Construction - Build, Operate & Own for 21 years under a Power Purchase Agreement with the national electricity provider Tenaga Nasional Berhad. Constructed in the district of Gambang in the State of Pahang, Malaysia

Green Bond Framework

REGION
Asia

BONDS

<table>
<thead>
<tr>
<th>ISIN</th>
<th>ISSUER</th>
<th>ISSUE DATE</th>
<th>MATURITY DATE</th>
<th>ISSUE VOLUME</th>
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<td>MYBU1801732</td>
<td>Universiti Teknologi MARA (UTM)</td>
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</table>

MY IMPACT

Energy Generation
0 kWh

Energy Consumption
0 kWh

Emission Avoidance
0 tCO2e

Markets

ASIA 100% 290010410 MYR

PROJECT VALIDATION

GREEN COMMITMENT
The Construction, Commissioning and Operation of a Solar Research Center on the premise for the conduct of academic research, training and R & D for Solar Power and Renewable Energy

DESCRIPTION
GIS to provide verification of construction by means of satellite images of the site taken over several years.

NAME
Satellite verification of construction

VALIDATOR
Geografia

DOCUMENTS
validation_gb_1btn
validation_gb_ar.png
Questions?

问题？