Developing an Internet of Free Energy

Preliminary links and pre-action plan

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On the development of an Internet of Energy

The seminal projects- Printoo and Catarina Mota's The rise of personal fabrication

David Galbraith's Twitter threads here and here

The Energy Physical Infrastructure

Alternative Sources

Solar energy panels (preferably printable and able to drape windows and facades)

Energy harvesting from light in buildings

Portable wind turbines (preferably printable)

Storage

Batteries (including vehicle's batteries)

Supercapacitors (preferably printable) to be used for domestic and industrial uses, as well as vehicles and wearables. See YLabs' Newly's startup project

Heaters

Preferably printable

Air conditioning devices

Preferably solar powered and printable (and DIY)

Lighting

Printable LEDs lamps

<u>Interconnected local smart grids</u>

[Local electricity market designs for interconnected nano-grids](#)

The Business Model

[Carbon credits](#) advance payments to finance installation, other development and maintenance costs and compensate adopters of solar energy

Energy will not be only free. It can, in addition, create a new revenue layer for everyone involved

The Internet of Free Energy's digital infrastructure

Operating as a [Virtual Power Plant](#)

Creating an [energy marketplace](#)

Pre-action plan

Create a vision and a plan

Create a consortium with well-defined roles

Develop pilot projects at Seixal municipality and Tapada da Ajuda/ISA. Meetings are already scheduled this week.

Use new generation printers (3D and printed electronics enabled) such as [NOVA](#) to create the preliminary devices. Work in connection with existing suppliers and new companies to be formed such as Newly.

The carbon credits project can be researched via my team at NOVA.