

# *Energy Islands*

## *Renewable Energy for Everyone*



## Problem statement



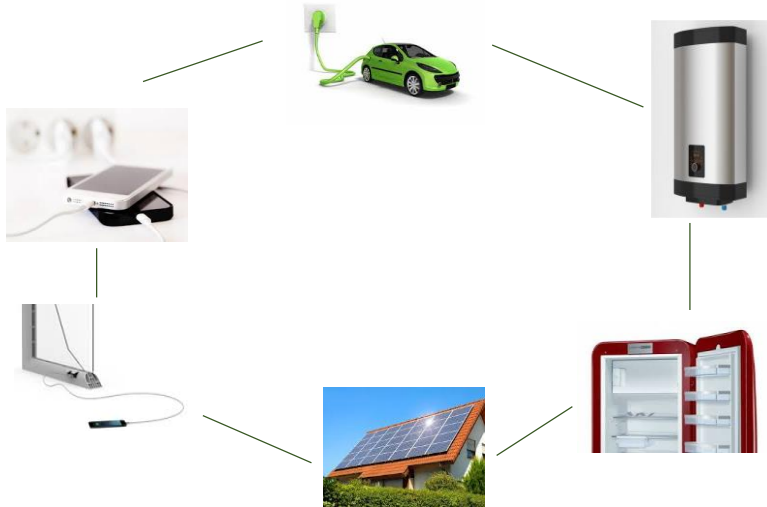
*Team Energy Islands:*

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- ✓ *Qianchen Yu*
- ✓ *Manuela Krull-Mancinelli*

### **No Grids:**

*How to Build a Grid  
in an environment  
where there is no  
Grid at all*

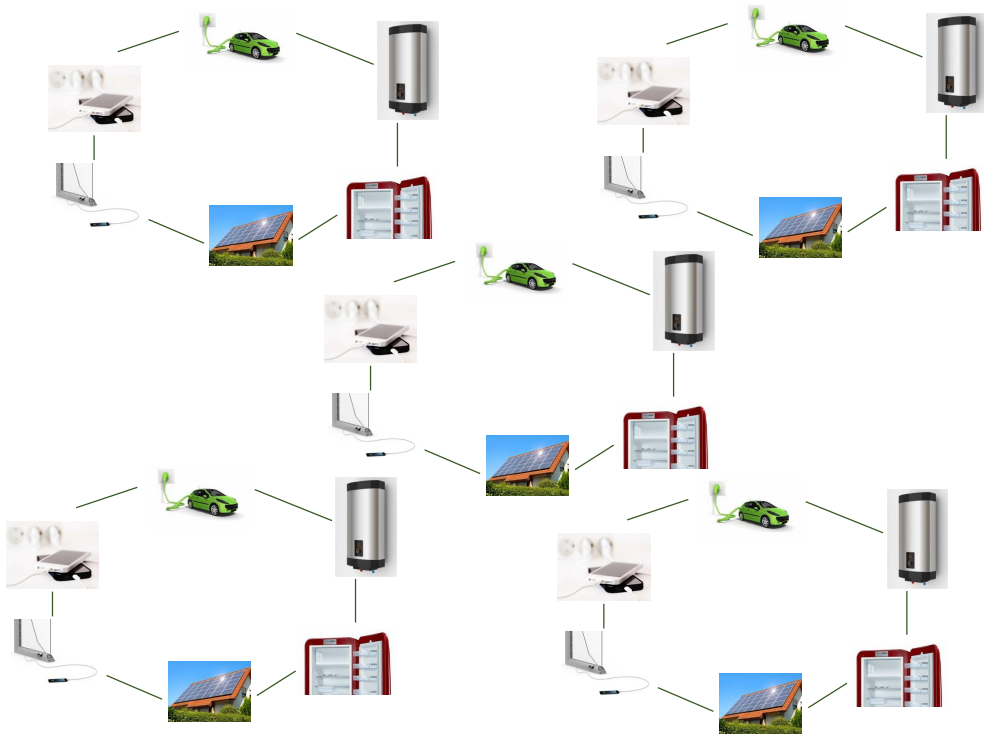
## Energy Island



### TRADING LEVEL:

- ☐ Energy trading **between devices**
- ☐ Solution for areas where there is **no grid at all**
- ☐ Not most efficient set up from energy pov

## Resilient Grid



### TRADING LEVEL

- ☐ Energy trading between **Energy Islands**
- ☐ Solution for areas **with or without a public grid**
- ☐ More efficient level from energy pov

## Opportunities

### Business

- Opportunity to develop business for the 'Plugin' and (smart) battery readers

### Consumer

- Quick set up of energy supply,
- Revenue opportunities using unused storage and unused space (see also other energy teams)

### Governance

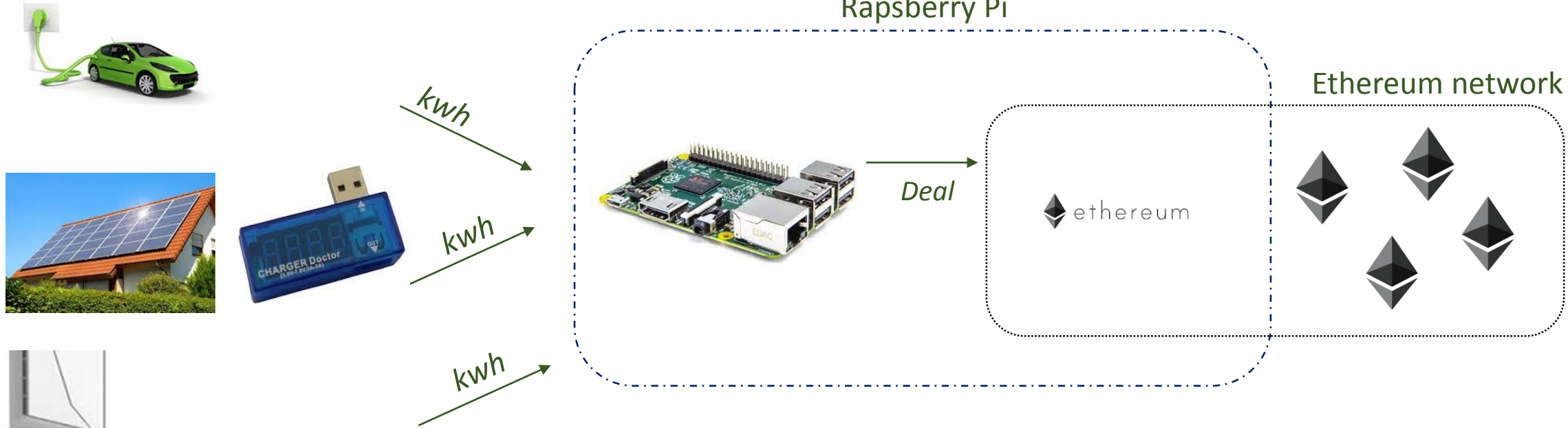
- Opportunity to redesign energy regulations

# How does it work

Plug In  
Device

Raspberry Pi

Ethereum network



Predictive Model

Devices with  
Battery

Energy  
Measurements

Matching  
Logic

Register Deals &  
Payments

# Consumer View

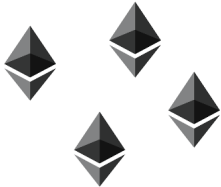
Raspberry Pi



Deal



Ethereum network



### HouseHold

Energy Islands

Households

Show: 10

Owner: Jane Doe, John Doe, Jane Johnson, TatCraft

Showing: Power bank, Mobile phone, TatCraft

### Devices

Energy Islands

Jane's devices

Show: 10

Search:

### Transactions

Energy Islands

Jane's mobile phone

Show: 10

Timestamp	TX-Hash	Price	Energy (kWh)	Partner device
2017-08-30T06:52:19+00:00	<a href="#">0xb1891ac79a75765e2d8e3775ebd8e7b45cae99529ebc92115de30e3e1a72</a>	0.004	0.1	bank_01
2017-08-30T07:15:20+00:00	<a href="#">0x7447b2356e03c0b4b0414a40b4e6d449e7b476426252ea1d79aac1c</a>	0.005	-0.3	phone_01

Showing 1 to 2 of 2 entries

Predictive Model

Devices with  
Battery

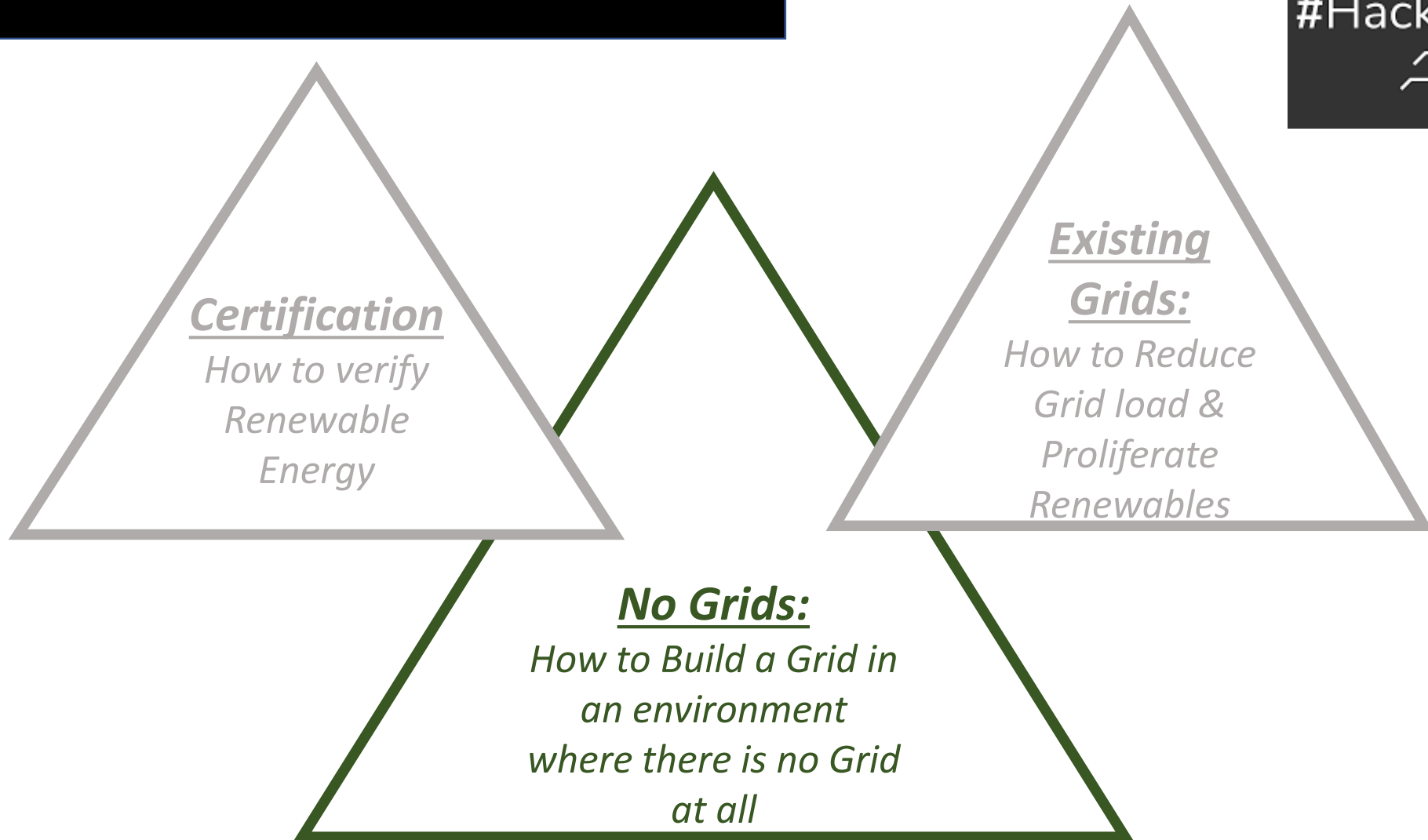
Energy  
Measurements

Matching  
Logic

Register Deals  
& Payments

Consumer Interface

## Enhancements – connecting to other projects





**Demo**