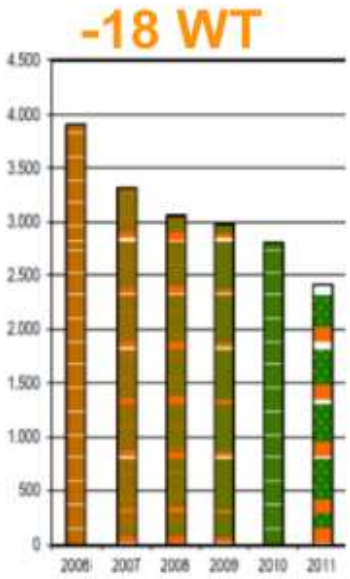
Ecopower is a REScoop

a Renewable Energy Sources COOPerative

Ecopower cvba



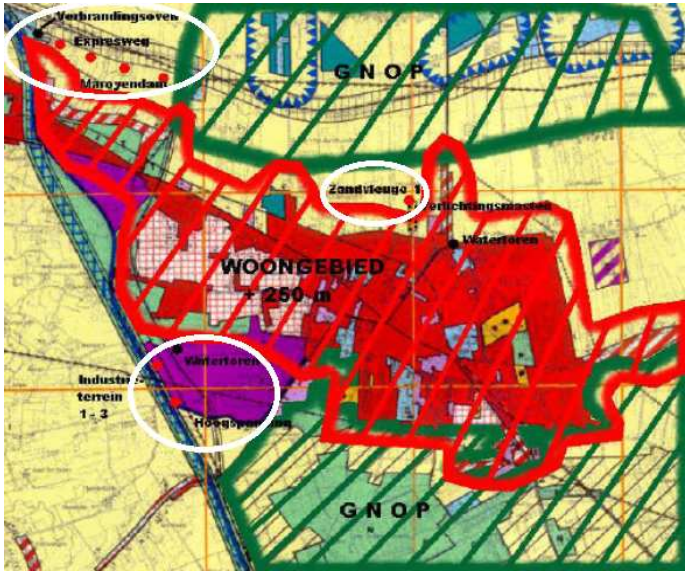
50.000 members ~= 1,5% residential market

Supply of production as a service to the members (100% RE & -50% RUE)

Case Eeklo : public tender wind

in 1999 and 2009

Ecopower cvba

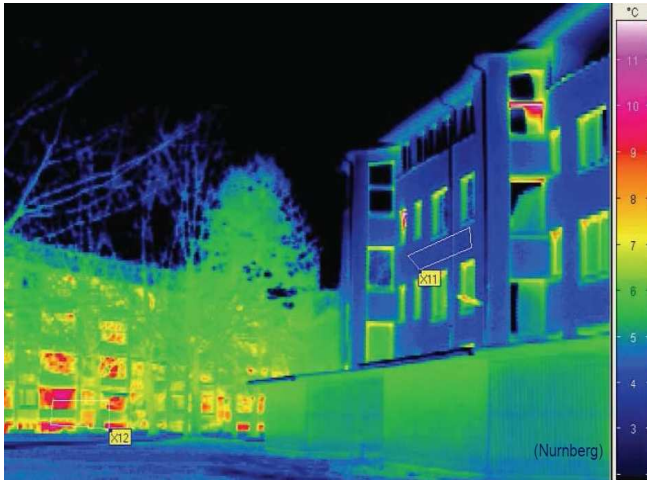


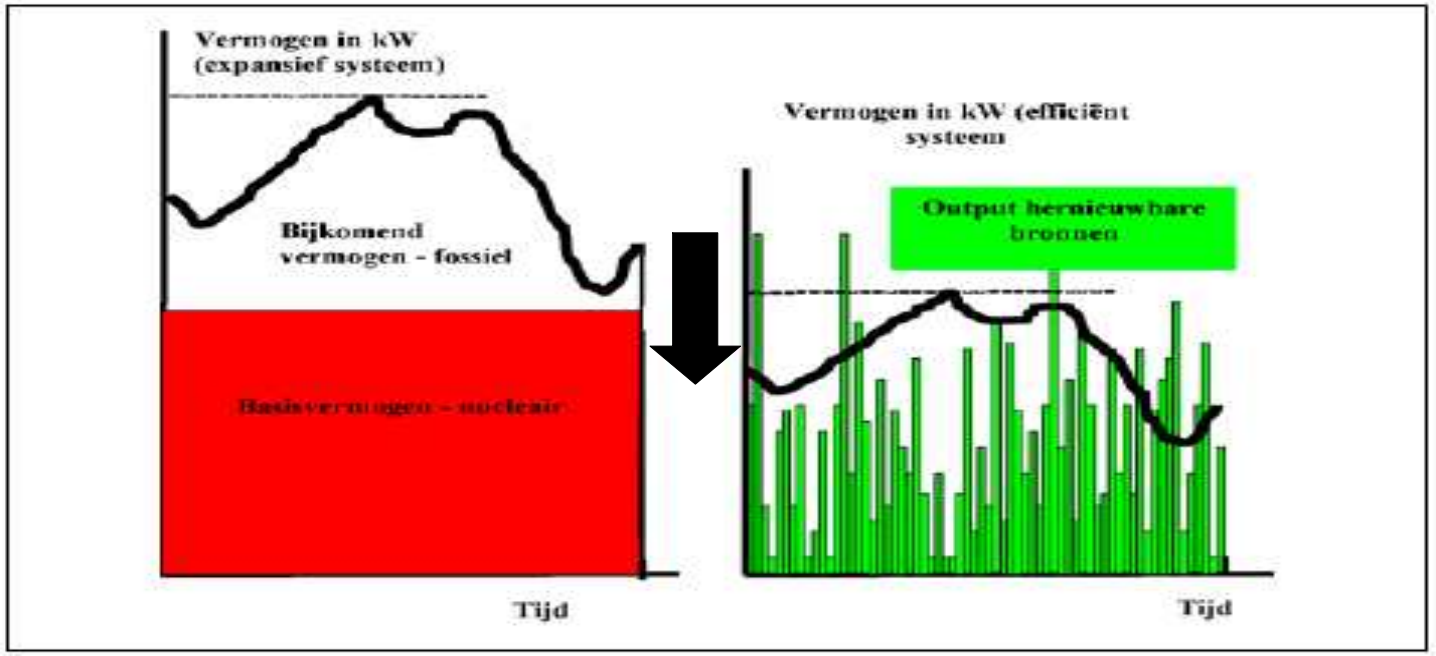
Eeklo : windturbines as a start for local transition & community power

Case Eeklo : RE & RUE

cogeneration on ppo & heat recovery city hall

Ecopower cvba





City =The building envelope & Coop = Energy technics RE and RUE

KLIMAAT GEZOND
Eeklo

Ecopower cvba




2011 : heat recovery on ventillation system

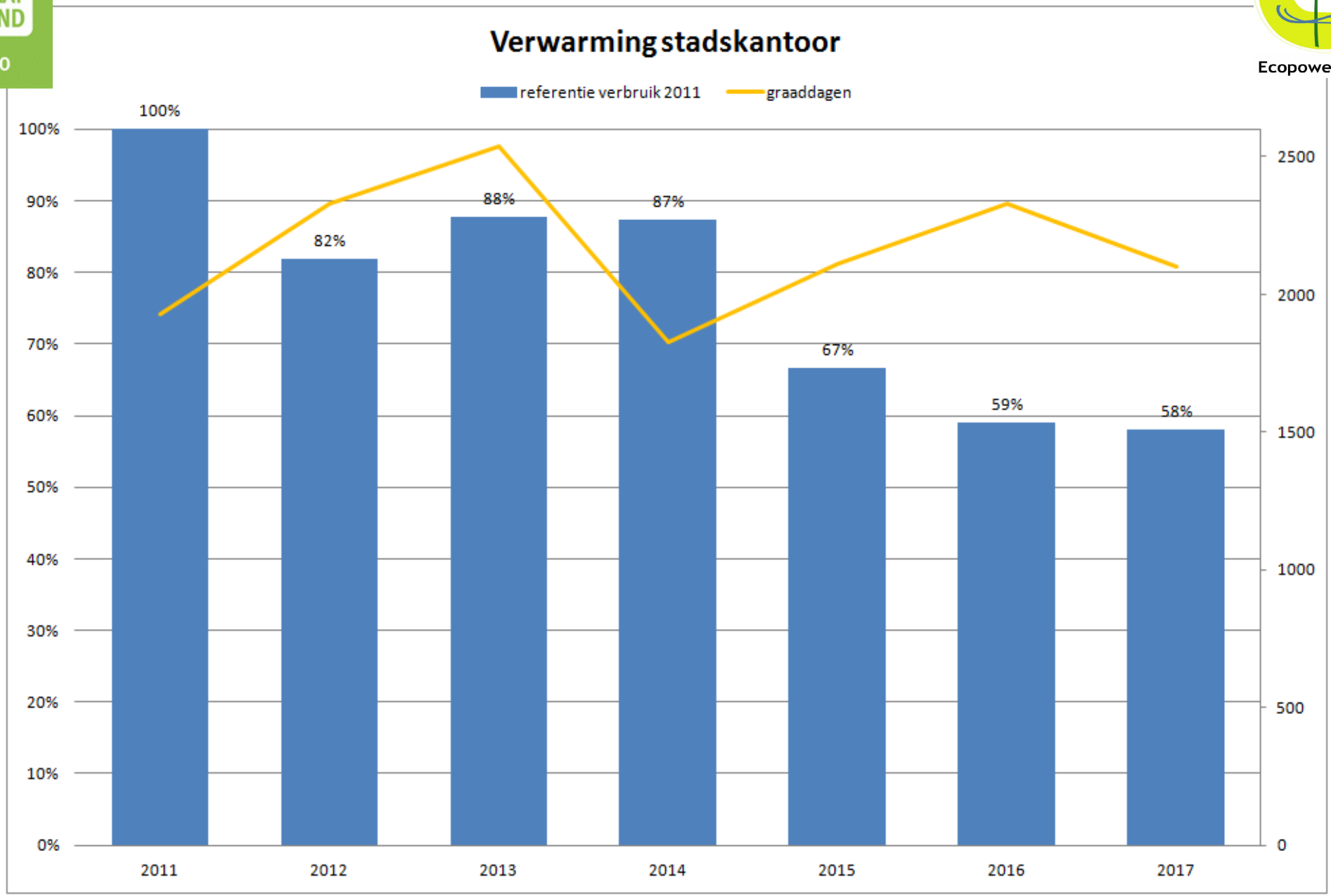
KLIMAAT GEZOND
Eeklo

Ecopower cvba

2015 : repowering condensation gas boilers backup & peakload cogen ppo

KLIMAAT GEZOND
Eeklo

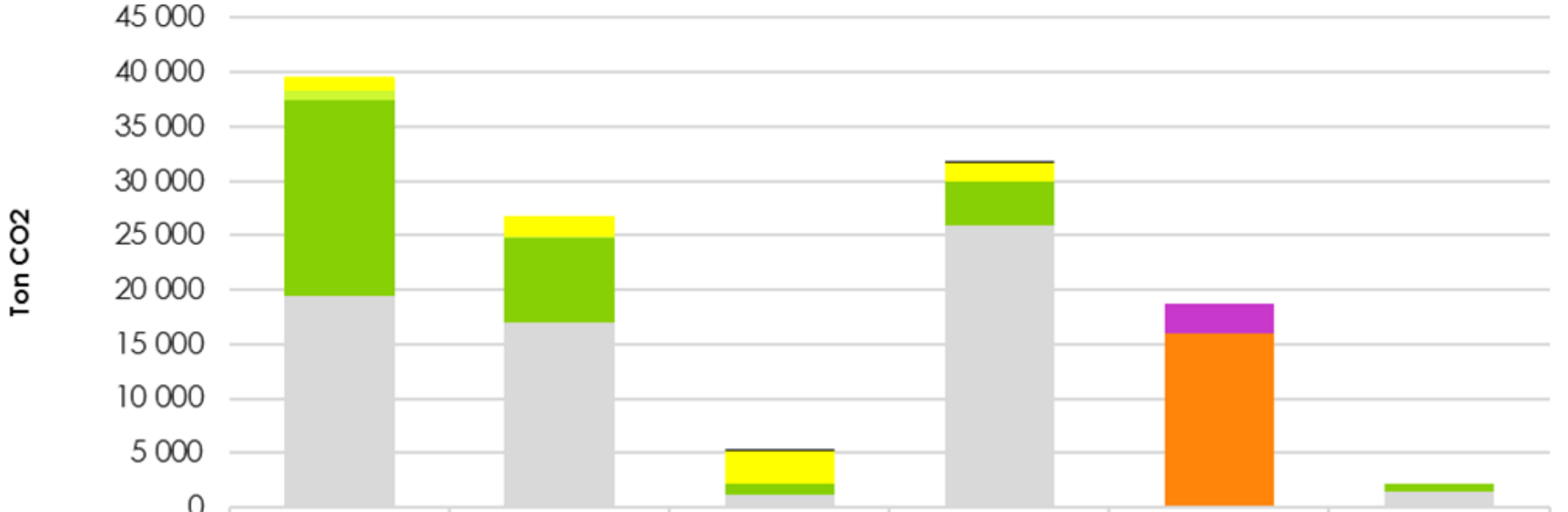
Ecopower cvba



2011 = 726 MWh > 2016 = 428 MWh (CoM –40%)

Eeklo : Nulmeting 2011

124.000 ton CO2 & 400 GWh



	Huishoudens	Tertiair	Landbouw	Industrie	Transport	stedelijke diensten
Steenkool	0	0	69	72	0	0
Benzine	0	0	0	0	2 864	0
Diesel	0	0	0	0	15 832	0
Stookolie	1 229	1 792	2 978	1 732	0	0
Vloeibaar gas	843	117	5	58	79	0
Aardgas	18 087	7 753	1 045	4 046	1	769
Elektriciteit	19 368	17 056	1 138	25 844	0	1 405

Grafiek 6: De uitstoot per brandstof per sector – Bron: Nulmeting (2011) VITO 2016+ cijfers van de stad Eeklo

Eeklo CoM : -40% emissions 2030 > collective RES & RUE

Case Eeklo : RE & RUE

PV public buildings & district heating feasibility study

Ecopower cvba

2017 : concession district heating @ waste heat & RES

Questions ?

Ecopower cvba

Adopt your street light

Patrick Swyngedouw
CEO PajoPower cvba so

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

ICA coops in Flanders

Agenda

- Relighting Halle
  - what?
  - bottlenecks
- Relighting future
  - what?
  - how?
  - when?
- Conclusion

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

Relighting Halle: what?

Δ public lighting lamps

- high Pressure Sodium → LED
- Light quality ↗, Electricity ↘ 50%

Relighting Halle: what?

- Pilot project

  Limited scale: 400 lamps

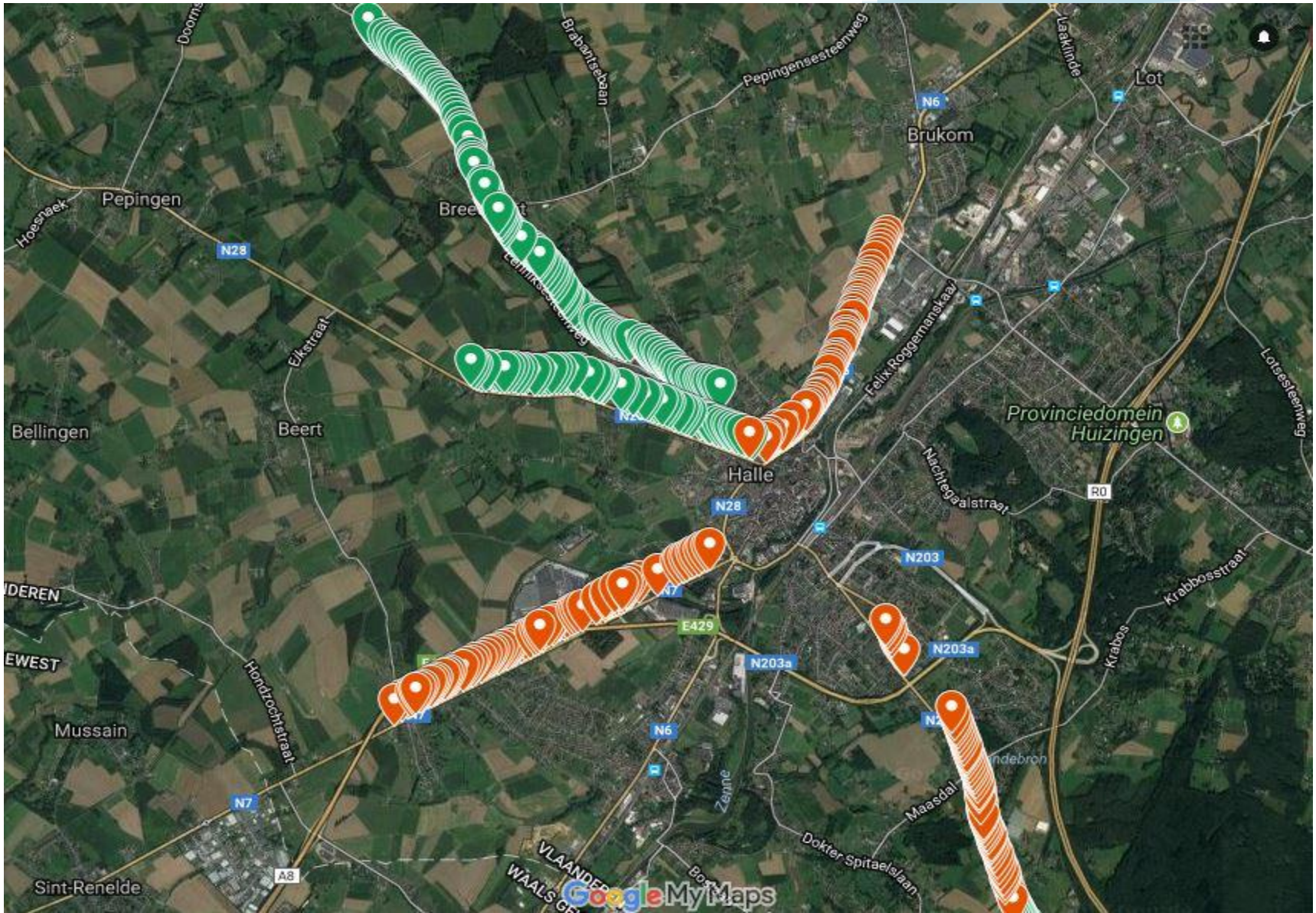
- Profitable
  - 92 tons CO_2 /year
  - City: € to PajoPower < € electricity saving
  - Financial model for coop

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

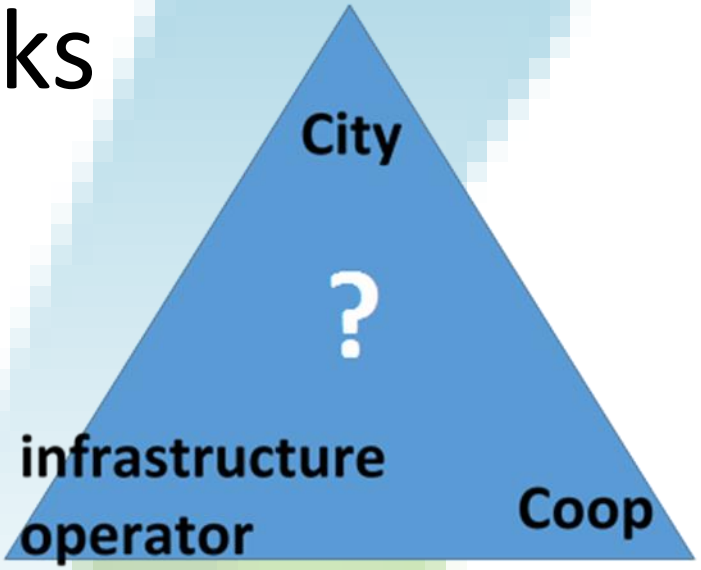
campaign

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

Adopted street lights



Bottlenecks



- legal minefield
  - Lamp ownership?
  - Coop = 3rd party:

    who does what?
- No examples of public tender, specs, quotation, …
- Local ↔ EU public procurement rules
- Too little ambition: dimming, sensor triggered, …
- Extra dimension: circular economy

SAMEN VOOR MINDER PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

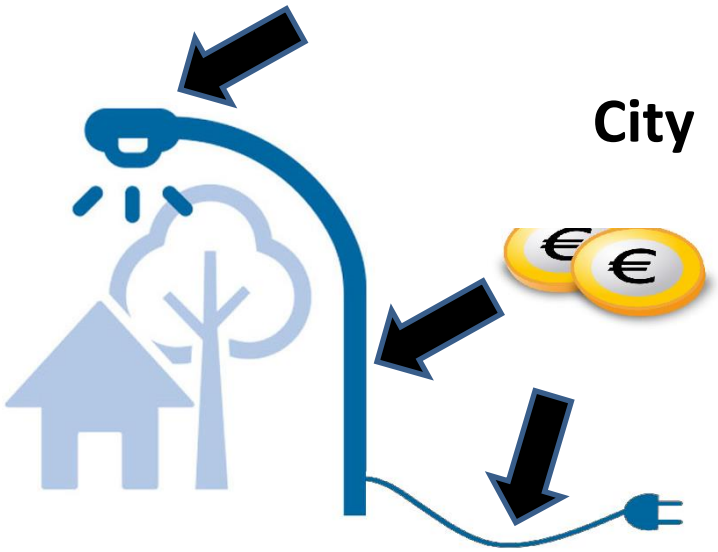
Agenda

- Relighting Halle
  - what?
  - bottlenecks
- Relighting future
  - what?
  - how?
  - when?
- Conclusion

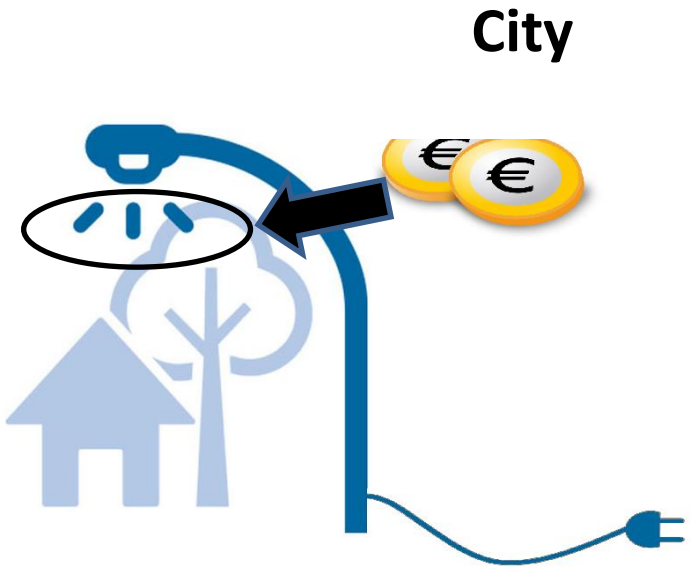
SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

Relighting in the future: LaaS

Light as a Service (LaaS)



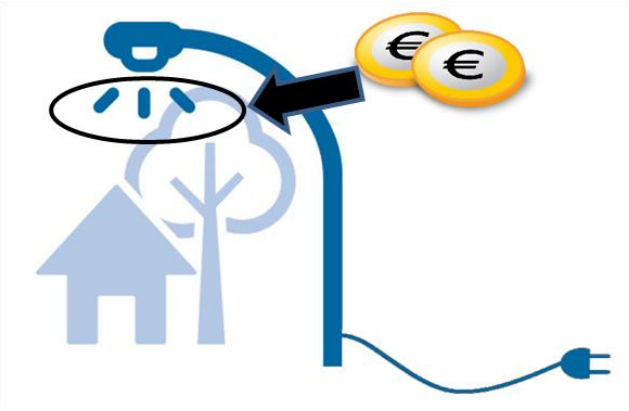
As Is



To Be

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

LaaS service model



- City
  - Service consumer
  - Buying **light**
- Service provider
  - Selling **light**

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

LaaS benefits

- Unburden city administration
- Business model stimulates:
  - Energy efficient lamps

  - Circular economy:
    durable armatures = modular
  - Local economy:
    repair / replace faulty parts

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

LaaS challenges

- How to involve citizens?
  - Financial participation
  - Participation (# lumen, when light, dimming, ...)

SAMEN VOOR MINDER
PAJOPOWER
ZOVEEL ENERGIE IN UW BUURT

Approach

- Regional government's financial support for innovative public projects

DEPARTEMENT ECONOMIE WETENSCHAP & INNOVATIE

Vlaamse overheid

- Project leader: City of Halle
- Project: "Durably supported public light"

SAMEN VOOR MINDER PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

Durably supported public light

Purpose:

Develop a service contract for the purchase of street light according to the principles of circular economy. Using locally produced energy, carried and co-financed through citizens' participation.

Durably supported public light

Project leader:

City of Halle

Stakeholders:

Agentschap Vlaanderen

Vlaams minister van Energie: Bart Tommelein

Vlaams EnergieBedrijf NV (VEB)

Participatiemaatschappij Vlaanderen NV (PMV)

Renewable Energy Sources cooperatives (REScoop Vlaanderen & REScoop EU)

Vereniging van Vlaamse Steden en Gemeenten vzw (VVSG)

i-Cleantech Vlaanderen

Durably supported public light

Project timing:

2018 - 2019

Ambition:

Implement the service contract in the Flemish cities, in order to contribute to the achievement of the SDG’s 2030.

Agenda

- Relighting Halle
  - what?
  - bottlenecks
- Relighting future
  - what?
  - how?
  - when?
- Conclusion

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

Conclusion

- Relighting
  - Ecologically sensible.
  - As is model of public lighting = outdated
- Future = durably supported public light
  - LaaS with citizens' participation:
    CiLaaS: Citizens Invest in Light as a Service
  - Service contract ready for rollout in 2020

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT

2020: birth of CiLaaS

Patrick Swyngedouw
CEO PajoPower cvba so

SAMEN VOOR MINDER
PAJO POWER
ZOVEEL ENERGIE IN UW BUURT