



CLEVER®

Strøm til din elbil

Introducing Test-an-EV

Høje Taastrup, March 7th 2013

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Please visit us at www.clever.dk , or facebook.com/clever

Who am I?

Projektansvarlig

Alexander Schou Nielsen

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LinkedIn – Alexander Schou Nielsen

Prince2 project manager – Economy and finance

Program Manager at CLEVER A/S since September 2010

First Test-an-EV project started in December 2010

Last project will end in Mai 2014

Responsible for other projects at CLEVER A/S

Teammanager for TEAM Projects at CLEVER, 3 Coordinators and 1 student helper



CLEVER A/S

- *Who are we?*

- CLEVER was established October 2009



- CLEVER is owned by Danish utility companies SE, SEAS-NVE, EnergiFyn, EnergiMidt, NRGi

seas nve

SE

EnergiFyn

ENERGIMIDT

NRGi

- CLEVER today has 30 employees in the HQ in Copenhagen, as well as employees in Jutland
- We are the largest operator in Denmark, supporting more than 400 cars
- Behind the largest research project of its kind in Northern Europe 'test-an-ev'
- Opened a nationwide network of charging points on June 1. 2012
- Working with all car manufacturers

What do we do?

**CLEVERs
mission
easy,
reliable
and safe**



INTELLIGENT
Charging
B2B, B2G, B2C



**YOUR OWN
GASSTATION**



**Nationwide
NETWORK &
services**



**Training,
collaboration
with, and
motivation of
EV distribution
channel**



"House CAR"



"Work CAR"



EV Projects

Our public network

- is growing every day

- CLEVER app
- RFID payment
- 50 Quick Charge
- Find our APP in app. store



What is Test-an-EV?

CLEVER.

Why EV's in Denmark?

- *Impact on society*

- Independent 'secure supply'
- Integrate more renewables
- Create jobs
- Reduce noise
- Reduce particles



Test-an-EV

3,5 million
kilometers

“Two year” project, 1600 families, 200 EVs

Recognized by a number of **governmental institutions**



In collaboration with a number of **research institutions**



Supported by companies throughout the value chain

SIEMENS



Falck

alka



seasonve

fotex

And, many many more

Why Test-an-EV

1. More EV's on the road - generating driver and charging experience
2. Normal everyday people drive the EVs, not Scientific or technical staff
3. Having an everyday dialog on up- and downsides about the EVs
4. Gather information about the EV's role in the power grid
5. Information about how the EV fits the normal Danish family
6. Political awareness and support to implement the EV in Denmark
7. Social acceptance – Thinking about the environment is CLEVER
8. Securing Denmark as leading in Charging infrastructure
9. Spreading the WORD – Everyone enjoys driving and EV!



How do we do it?

1. 1600 families
2. 24 municipalities
3. 8 companies
4. 200 EV's
5. Families get instructions from CLEVER
6. Families drive the EV for 3 months
7. Every car has a data logger/GPS
8. After 3 months they return the car to CLEVER
9. A new family drive the car for 3 months
10. The project ends after 8 rounds / 2 years

Requirements

1. Every family have to BLOG min. 1 time each week
2. Every family have to answer questionnaires
3. The families are responsible for the car (damage, data, cleaning)
4. Everyone can apply to the project, Need to have drivers license and a car
5. We have all kinds of test drivers with all kind of background



Test-an-EV in Høje Taastrup



**Høje-Taastrup
Kommune**



ECO-Life project

CLEVER

Test-an-EV Høje Taastrup

- Start: 04.12.2010
- End: 26.11.2012
- First Project with Citroen C1 EVIE
(An electric vehicle conversion)
(first project overall to start)
- 10 EV's
 - 10 Citroen C1 Electric Vehicle in the beginning
 - Over time also OEM (Peugeot Ion and Citroën C-Zero)



Events were held at:

- Høje Taastrup City Hall
- Over 350 applicants in Høje Taastrup
- Over 25.000 applicants in DK



Høje Taastrup STATS

145.822 km and

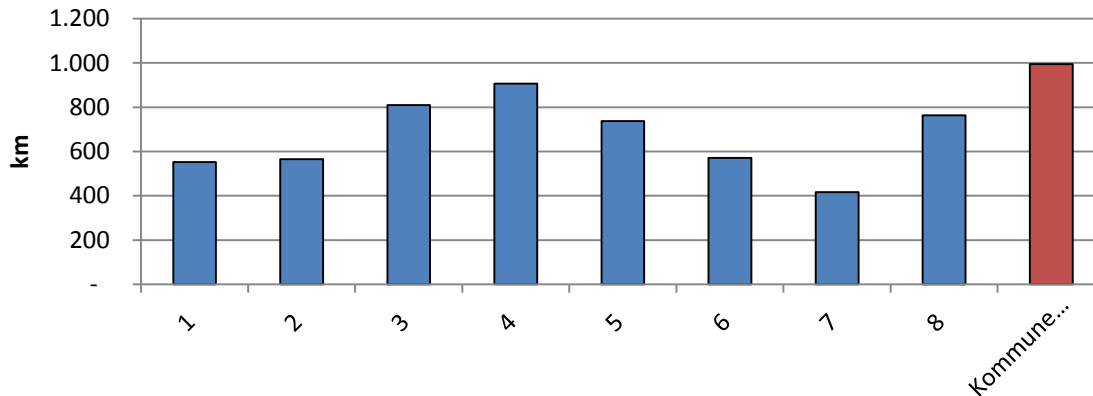
10,5 tons CO2 saved



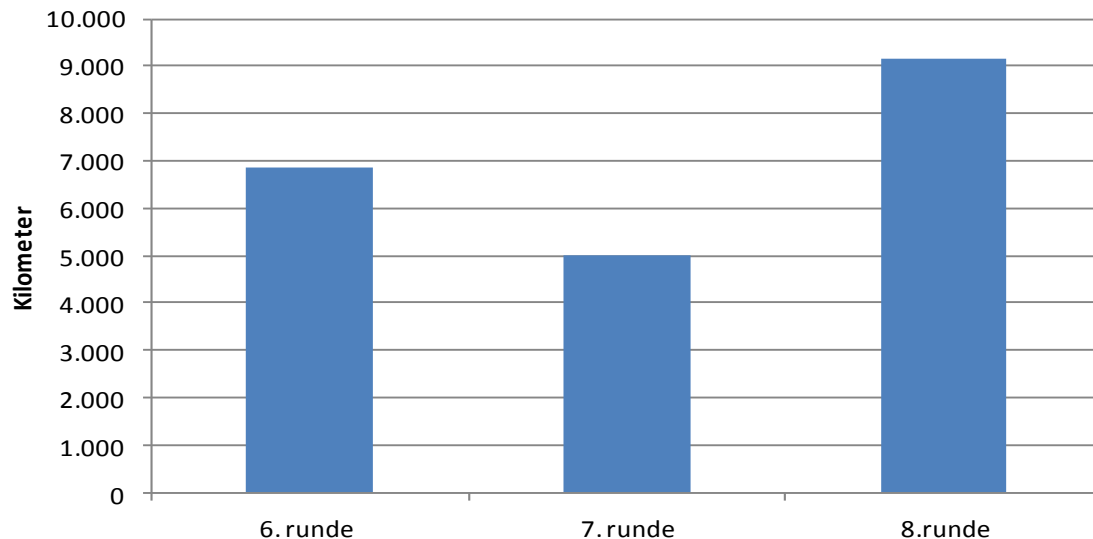
Km overall	145.822
Times around the world	3,6
Saved ton CO2	10,5
Number of families	78
EV days (excl. breaks)	681

Høje Taastrup STATS

Kilometers driven for each testround



Yealy average kilometer driven per person



- Average km in DK:
14000-16000 pr. Year
- Høje Taastrup is a suburb to Copenhagen and is a densely populated city with 47.000 inhabitants.
- Høje Taastrup km higher than the average in Test-an-EV?
(995/914)
- Shows us we get drivers from all over the municipality

What do the families say?



“Perfect for commuting”

“Everyone wants to have a go”

“People we don’t know suddenly talk to us about the EV”

“Charging is not a problem”

“Home charging is perfect”

“EVs are the future!”

“Driving with good conscience”

And the children:

*“Why do all the **other** cars make so much noise?”*

*“Imagine our city **only** had EVs driving in it”*

Test-an-EV

Learnings

Trying - radically changes perception

Range anxiety... is not a problem

Good EV habits in their own ICE car

EV users fall in love with their electricity

Charging must be simple and integrated

Weather is a problem

City Car – no!

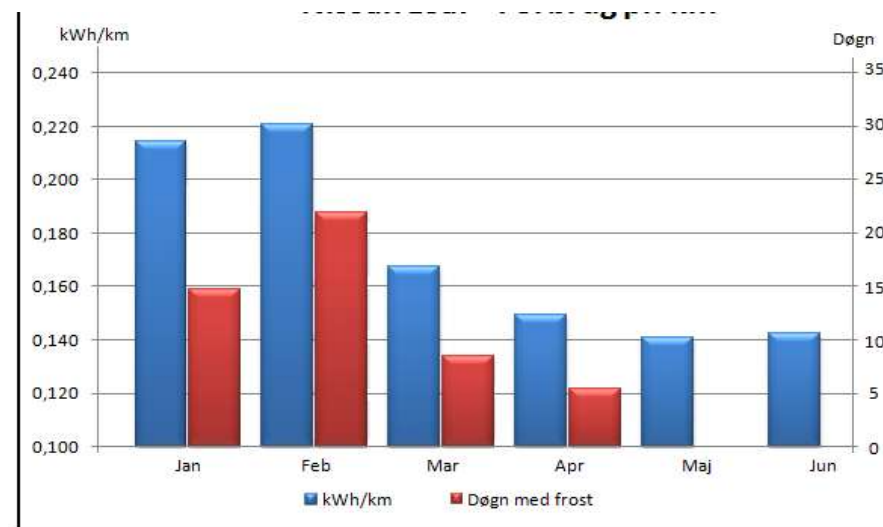
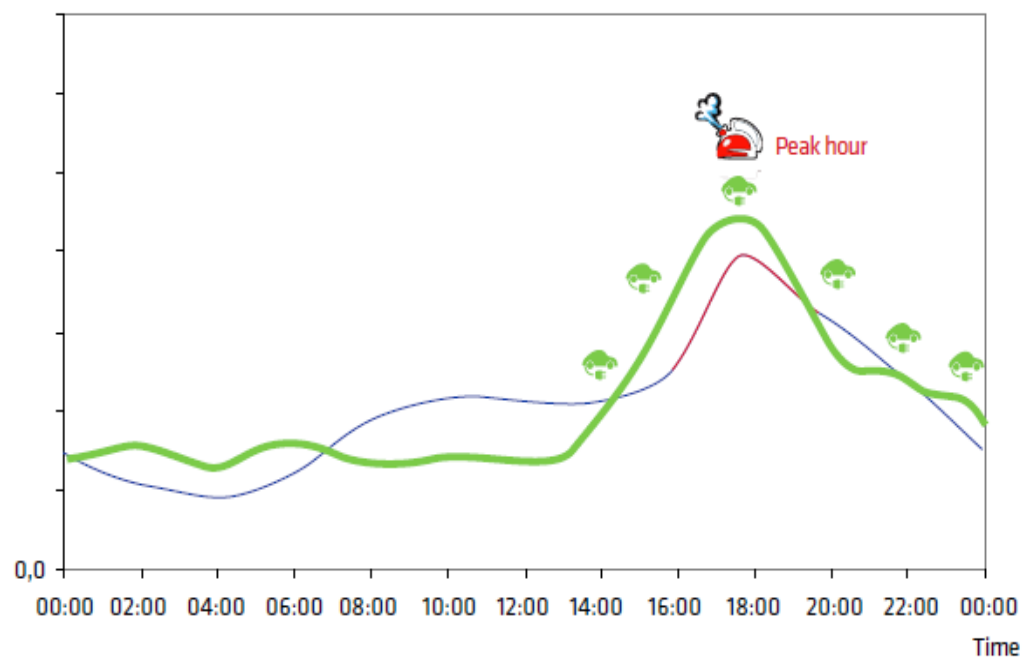
TCO of CAR



Data is key!



Power Consumption



CLEVER[®]

Strøm til din elbil

We thank our sponsors:



**Høje-Taastrup
Kommune**

ENERGI
STYRELSEN

Trafikstyrelsen
Danish Transport Authority



**Region
Hovedstaden**



ECO-Life project

... and all the others

Q&A

Thank you for your time!