Virtual Power Plant

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INTRODUCTION TO ALLIANDER

Shareholders
- 24% other shareholders
- 9% Amsterdam
- 9% Noord-Holland
- 45% Gelderland
- 13% Friesland

End-users
- 6 mln

Revenue
- 1,6 bln

We maintain 89,000 km of electricity cables. That is twice around the world!
MANY NEW DEMANDS ON THE ELECTRICAL GRID
REINFORCING THE GRID IS SLOW AND VERY EXPENSIVE
EUROPEAN PROGRAM CITYZEN

DEVELOP AND DEMONSTRATE ENERGY EFFICIENT CITIES
DEMO’S IN AMSTERDAM & GRENOBLE

- Innovative Collective Drainage Network
- PV Plant with Self-Consumption & Storage
- Innovative Low Pressure DH Network
- Smart Grid Grenoble and Vivacité Tool
- Retrofitting Towards Zero Energy Buildings
- District Cooling with Cold from River IJ
- Dispatch and Trading Waste2 Energy Plant
- Net Zero Energy Retrofit of Residential Buildings
- Biorefinery at Heart of the Circular Neighbourhood
- Cooling Bloodbank with Cold from Drinking Water
- VehicleGrid: Energy Storage in Cars
- 10,000 Households on Future Proof Smart Grid
- Energy Storage at Home Virtual Power Plant
VIRTUAL POWER PLANT
USE CASES VIRTUAL POWER PLANT

TRADING ON ENERGymARKETS

USE OF LOCAL SUSTAINABLE ENERGY

SUPPORTING THE LOCAL ELECTRICITY GRID
LESSONS LEARNED – CUSTOMER PERSPECTIVE

REASONS NOT TO JOIN:
- LACK OF SPACE
- NO ROOM FOR THOUGHT

REASONS TO JOIN:
- EXCITEMENT
- ACT AS ONE COLLECTIVE
LESSONS LEARNED – TECHNOLOGICAL PERSPECTIVE

CONCLUSION
WITHOUT A SUITABLE INSTALLATION BATTERIES CAN INCREASE THE GRID INSTABILITY.
LESSONS LEARNED – REGULATORY PERSPECTIVE
THANK YOU

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More Information Cityzen Program:
http://www.cityzen-smartcity.eu/

More Information Cityzen Virtual Power Plant:

Movie Cityzen Alliander:
https://youtu.be/zRLvcRO6aYM

Movie Virtual Power Plant:
https://youtu.be/cqWAWb_7_bA