

ECEEE summer study 2013

June 3-8

Toulon/Hyères

**Energy-efficient neighborhood development
in Apeldoorn (NL) and Hillerød (DK),
implementation and results**

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SORCER



Stimulating Obtaining Results in Communities in relation to Energy- efficiency and Renewables

Integrated Project


Call FP6-2005-TREN-4 CONCERTO II

May 1 2007 – October 31 2013

Contract nr:

TREN/07/FP6EN/S07.70576/038588 SORCER



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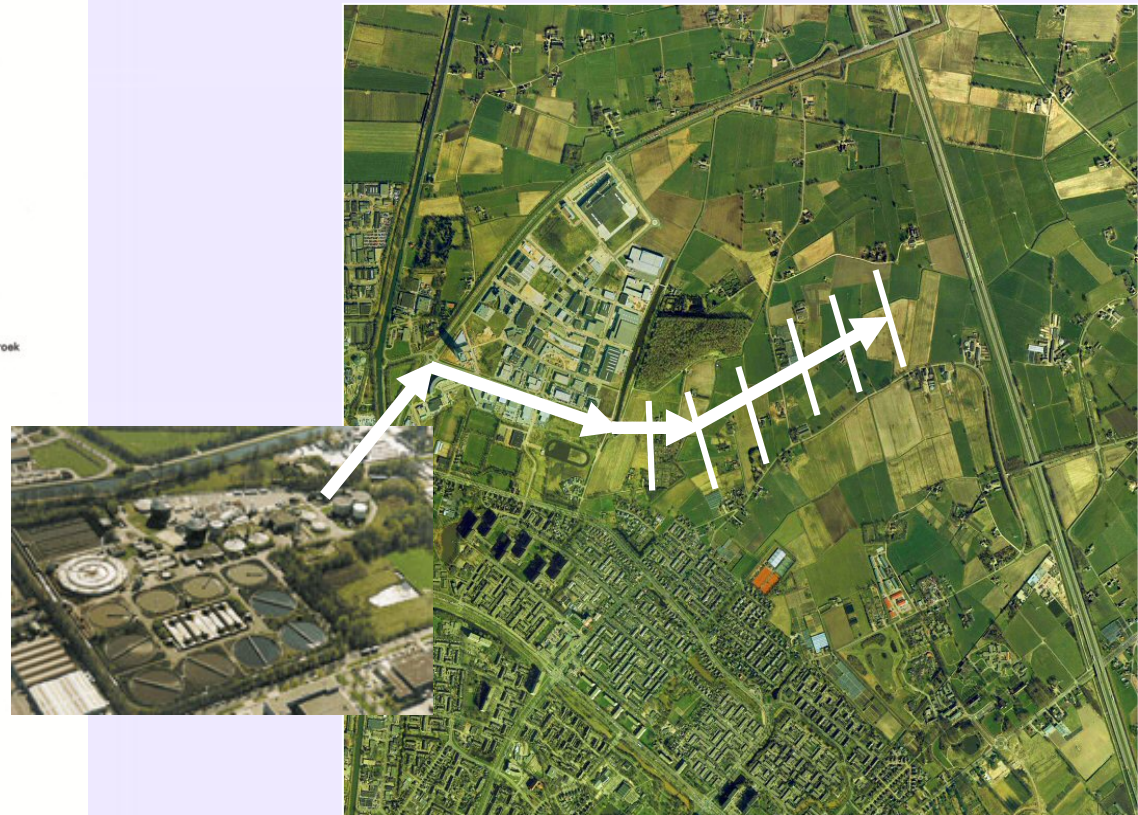
Apeldoorn

- ➔ Sewage digester, with poultry sludge (1.5 MWe)
- ➔ District heating Zuidbroek (2500 dwellings)
- ➔ EPC (shell based) of 0.8 for 140000 m²
- ➔ Overall EPC 0.64 or better
- ➔ >300 kWp PV
- ➔ 2.8 MW Woodchips peak boiler

Hillerød

- ➔ Low temperature district heating
- ➔ 3000 m² Solar collectors
- ➔ 6733 m² Class 1 Ecobuildings (-50%)
- ➔ 30000 m² Class 2 Ecobuildings (-25%)
- ➔ Biomass gasifier
- ➔ 3000 m² Renovated buildings
- ➔ 354 kWp PV

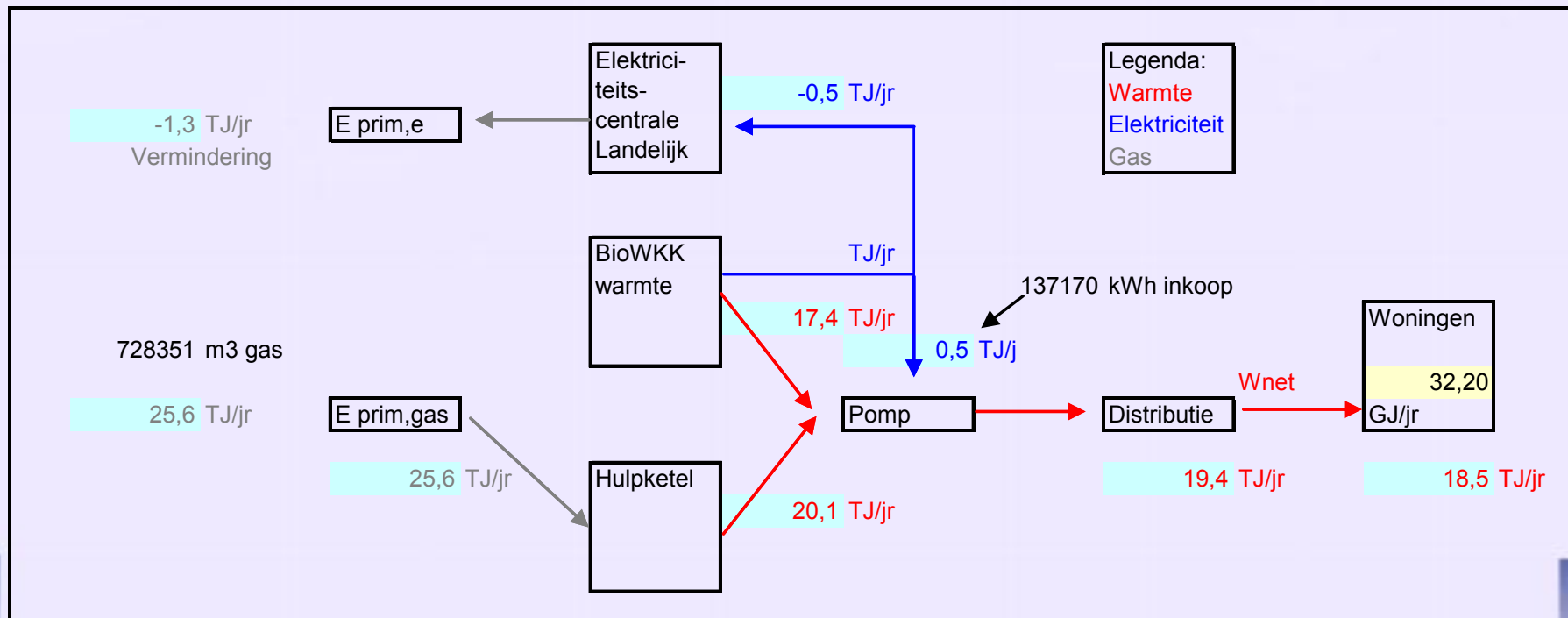
Apeldoorn Zuidbroek



Equivalente opwekkingsrendement:

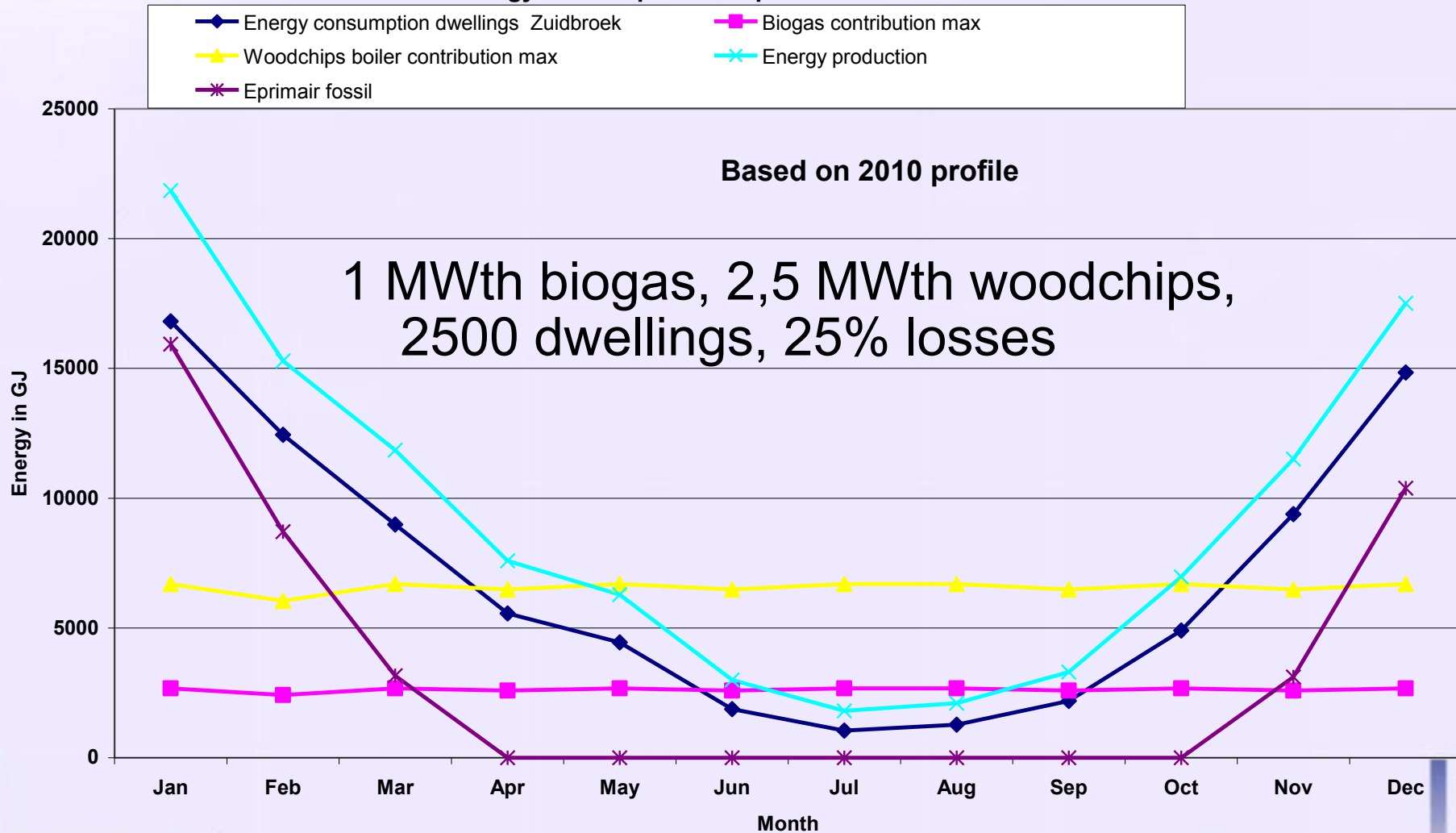
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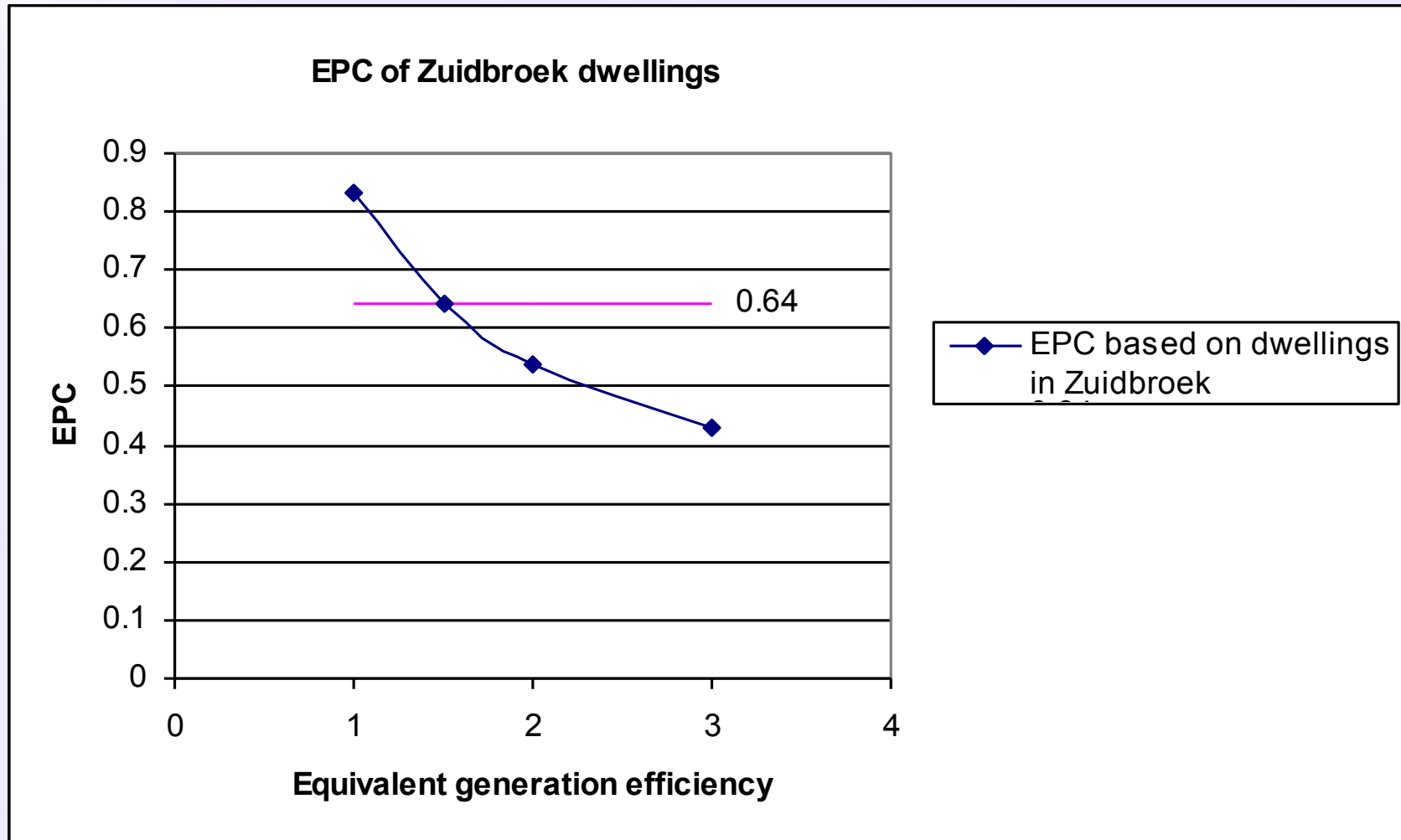
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Demand and supply

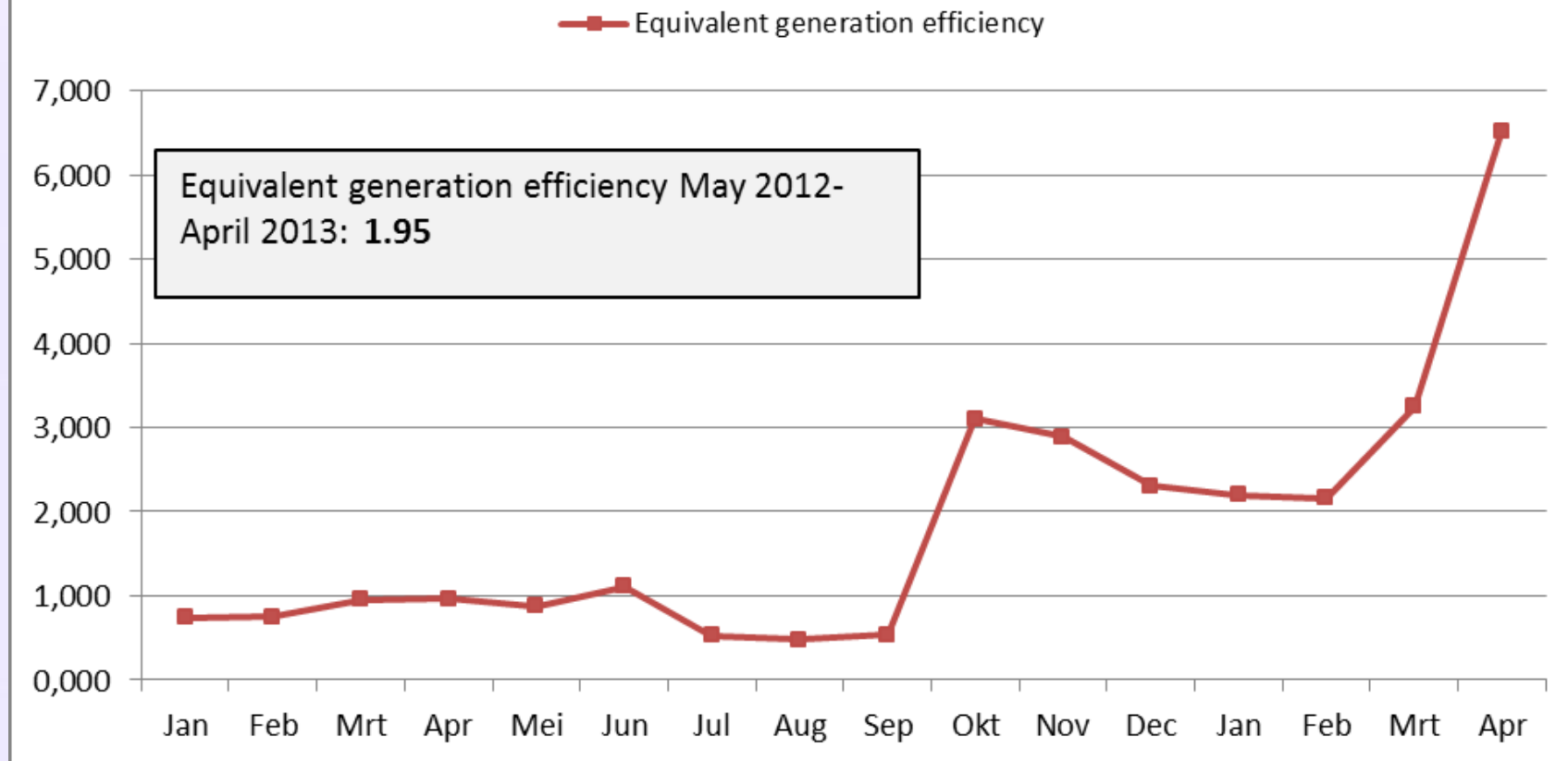
Energy consumption and production Zuidbroek







Equivalent generation efficiency January 2012- April 2013



- ✚ In the Dutch EPC system, the dwelling performance can be dependent on the system efficiency
- ✚ The (shell based) energy performance of the dwellings is as expected when compared with similar dwellings
- ✚ At the end of the project, the EPC is about 34% better than regulations

