

Development and installation of solar thermal systems in the C(SS)R (1977-2008)

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Position of OZE and solar heat in the CR in 2007

Energy share from OZE in PEZ

4.7 %

Solar heat energy share in PEZ

0.01 %

Solar heat energy share in the energy from OZE

0.17 %

Czech (Slovak) solar history

1977 -1992

Initiatory enthusiasm, self-help realization of non-efficient devices. Strong state support after 1980, many experimental projects of a considerable extent. Centralized production of type systems. Drop of concernment after 1985, disillusion...

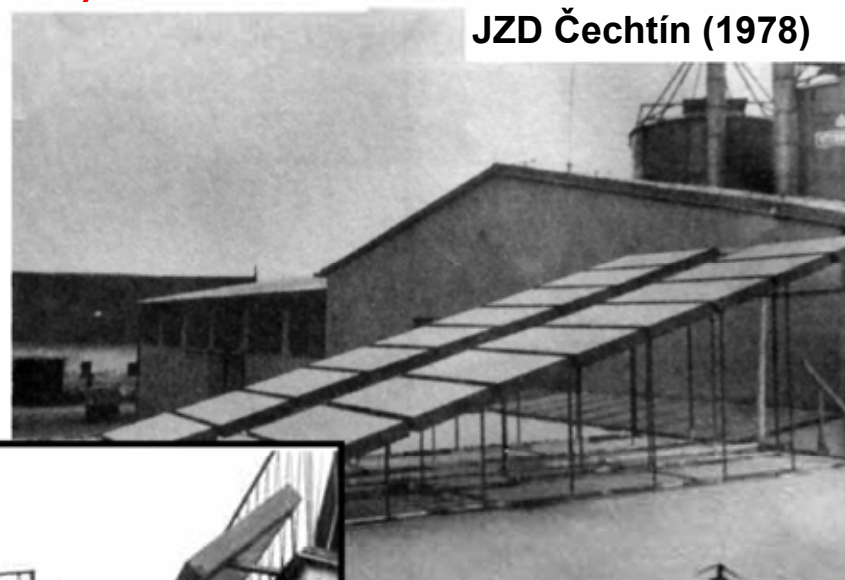
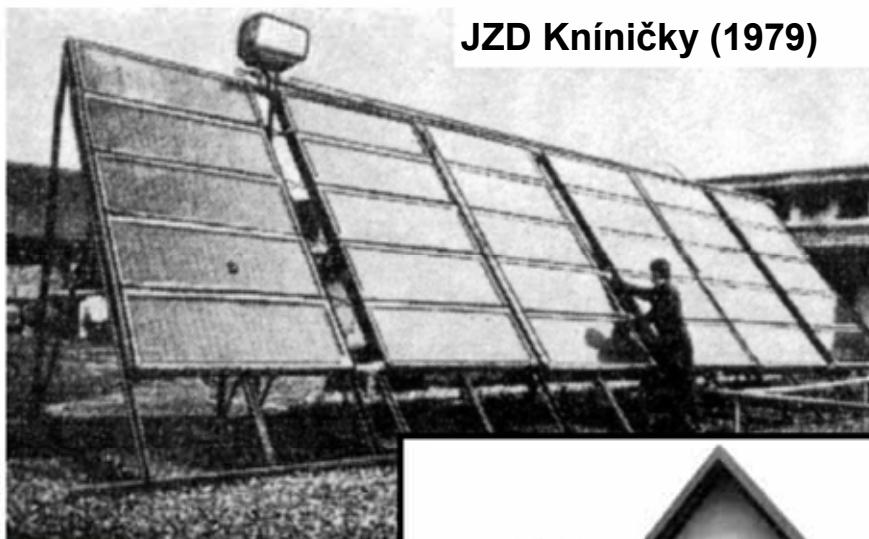
1992 -1999

Minimum state support, many production companies die out after a short time, failure of „self-help systems ARGE" in the Czech environment... Installation of collectors of few companies.

1999 –until now

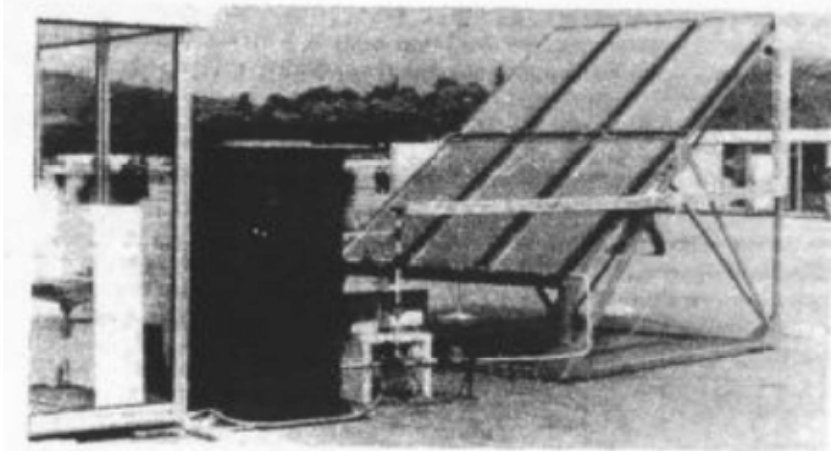
Significant development as for the number of production and import companies, export growth. Transfer of the order volume from purely „solar" companies to „heating" companies. Large state grants and investments from the public sources. Sharp growth of the population concernment.

Self-help solar collectors (1977-1983)

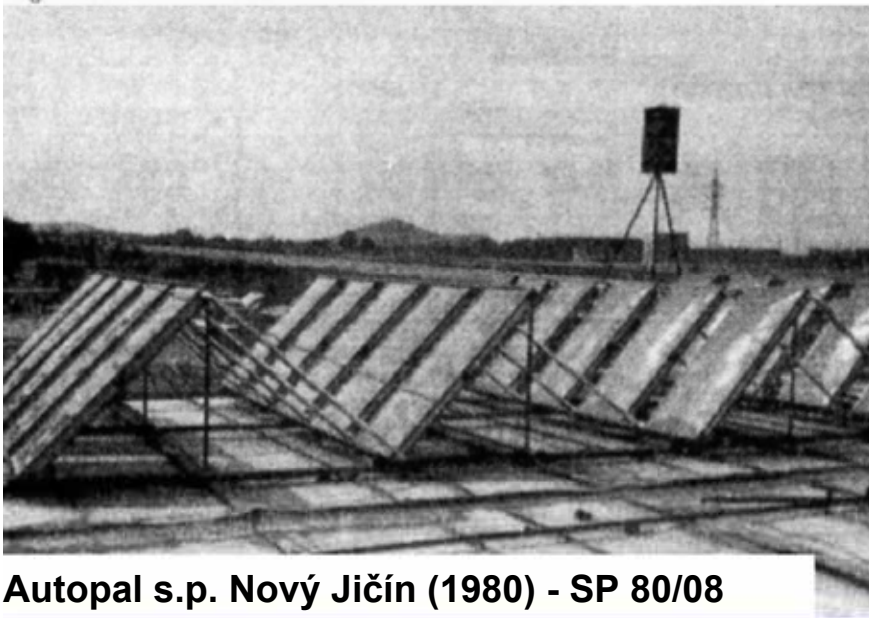
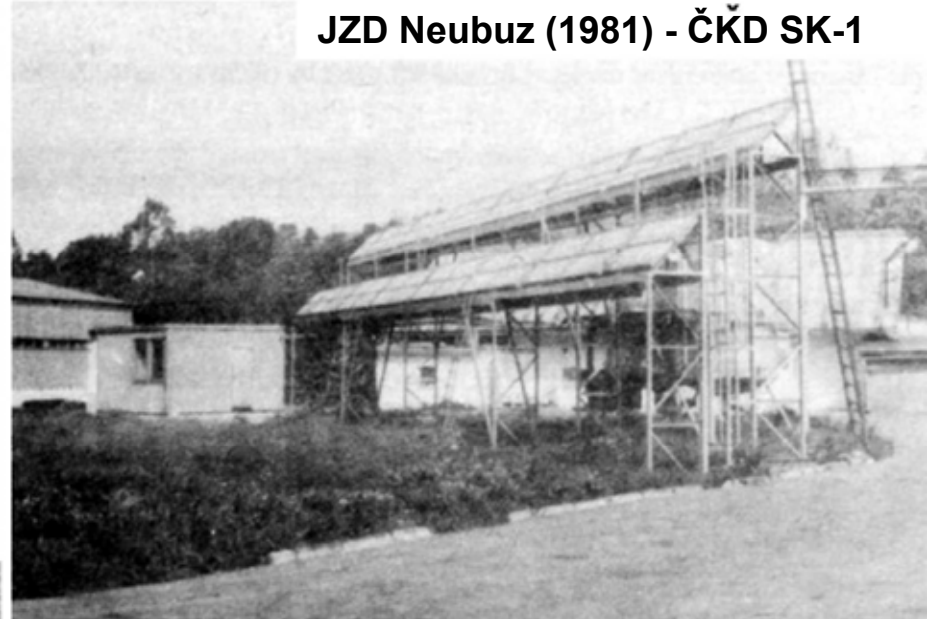


First manufactured collectors (1979-1981)

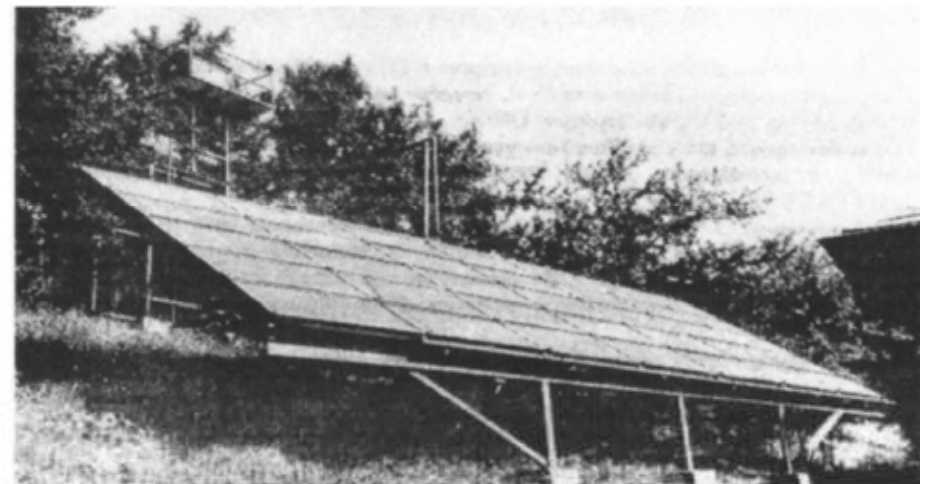
Brno (1980) - Likov SKL-1



JZD Neubuz (1981) - ČKD SK-1

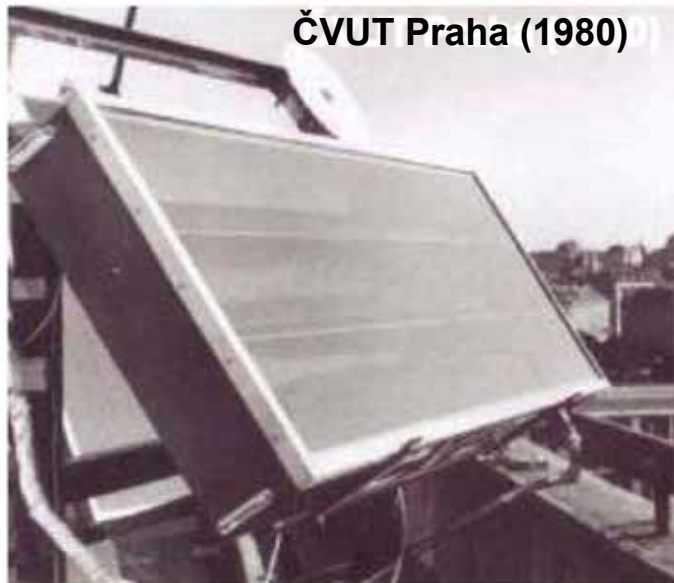


Autopal s.p. Nový Jičín (1980) - SP 80/08



LPT Lednické Rovne (1979) - SP 79/04

Concentration collectors of ČVUT (1980 - 1984)



ČVUT Praha (1980)



Hospozín (1984)



The oldest functional solar system in the CR

ČVUT Herbertov(1982)

!!! 27 years of operation !!!

Collectors of OPS Kroměříž (1978 - 1992)

Kolektory OPS Kroměříž - SP 80/08



Open-air pool Rusava (1985)

Open-air pool Albrechtice

RS Pracov-120 m²



Collectors of Elektrosvit Nové Zámky (1983 - 1990)

Solární systém ES 10 01 (30 m²; 1250 litrů TUV)



Auto-camp Buchlovice (1985)



Solar system
ES 2/125
(1983)



Agrokomplex Nitra (1981)



JZD Běchary (1984)

Collectors of ZSNP Žiar n.H. (1980 - 1992)

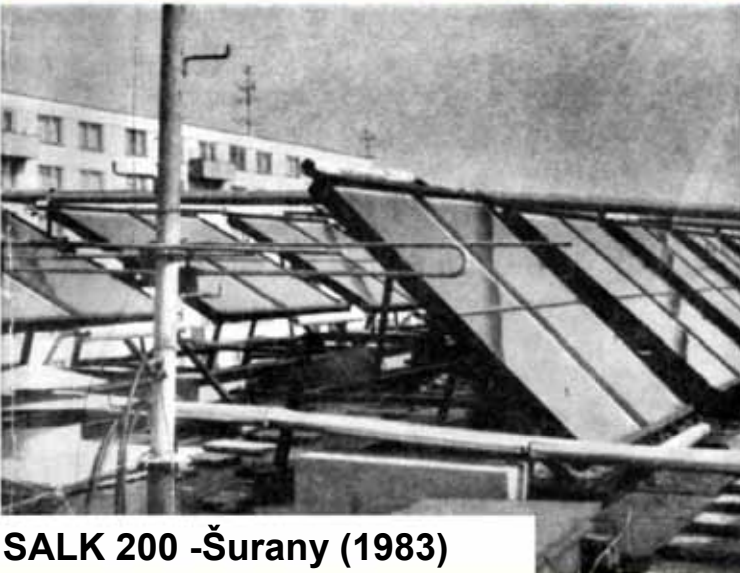
SALK 200 - Hořice (after 1985)



Aluminium collectors SALK 200/275 (1.V)

Spectral- selective absorber layer

Many installations still in operation



SALK 200 - Šurany (1983)

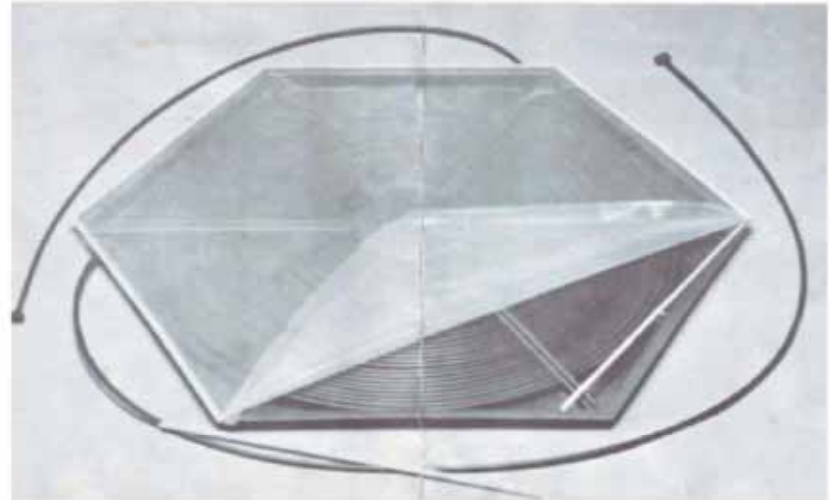


SALK 275 - Neresnica (1986)

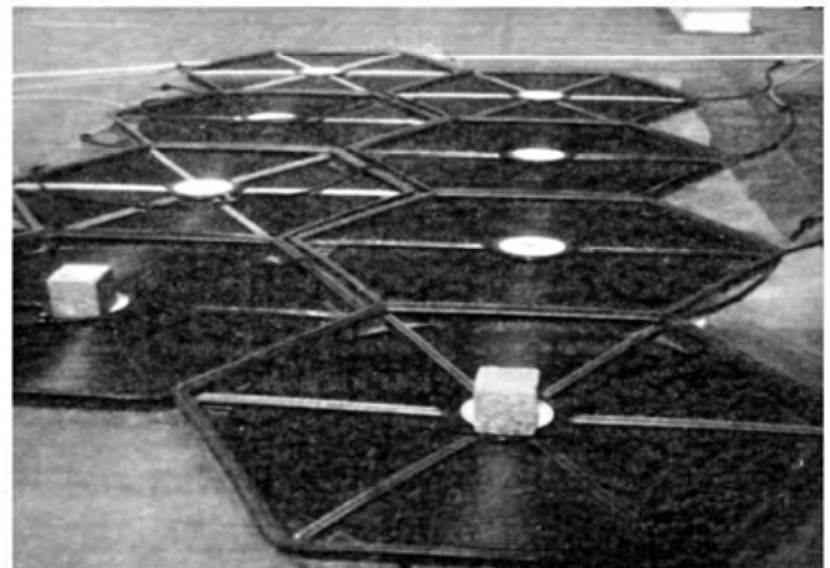
Solar absorbers (1977 - 1992)



Absorbers TSA - JZD Družba Kroměříž



Solar cell Celoplast – Slunce (Sun) A



Swivelling concentration collectors (1981 - 1992)

Solar 18 - Jindřichův Hradec (1981)



Farm Chropyně (1983)



SK-36 -Kroměříž (1988)

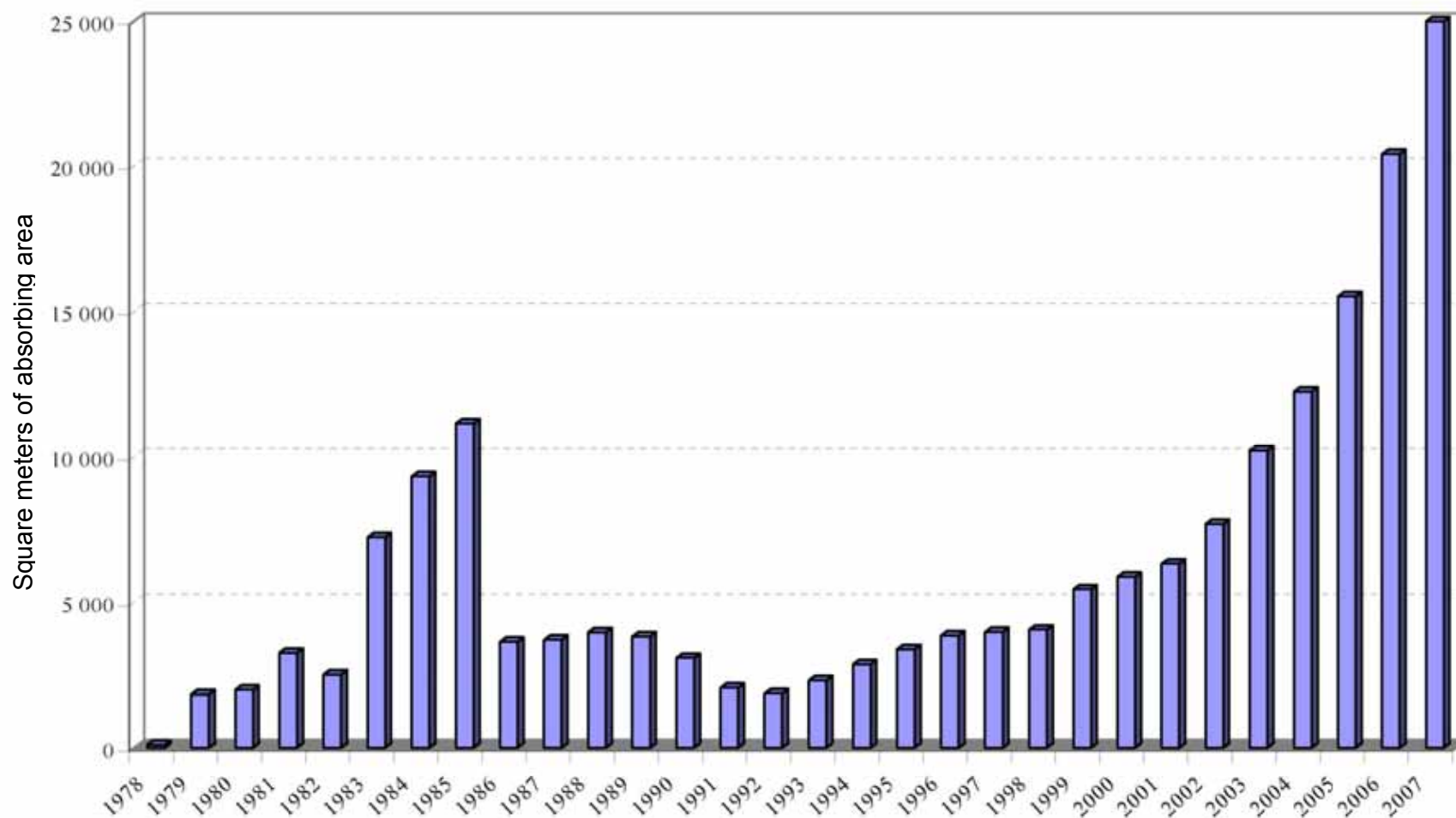


Chlumec nad Cidlinou (2009)



Solar collectors – trend of deliveries

Assessment of delivery trends of solar collectors into the Czech market



Solar collectors – the nineties



Textile-plastic absorbers of the range TP - Ekosolaris a.s. Kroměříž

Solar collectors – break of the century



Collectors Heliostar - Thermosolar (Slovakia)

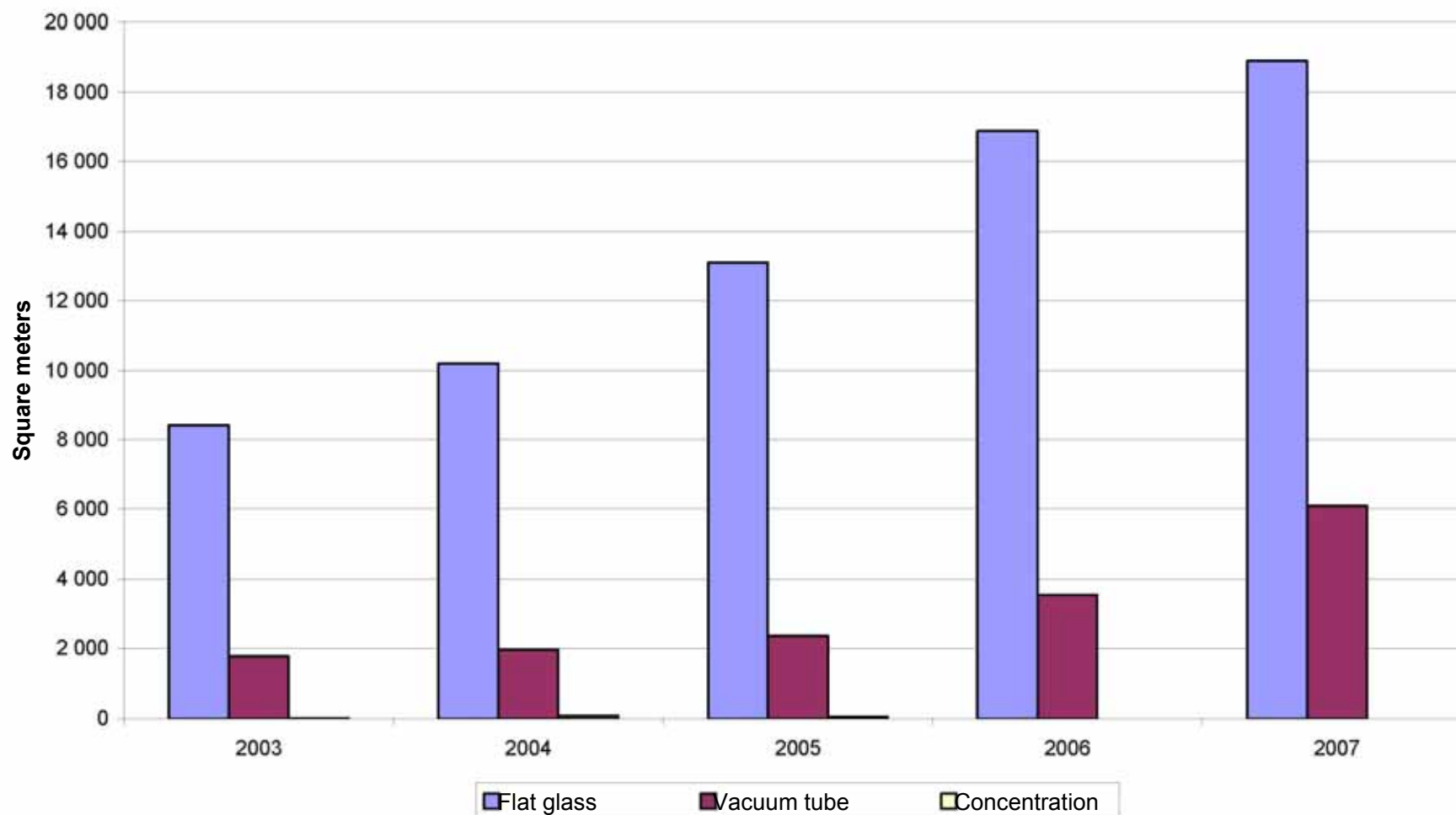
Solar collectors – break of the century



Collectors Ekostart Therma - Ekosolaris a.s. Kroměříž

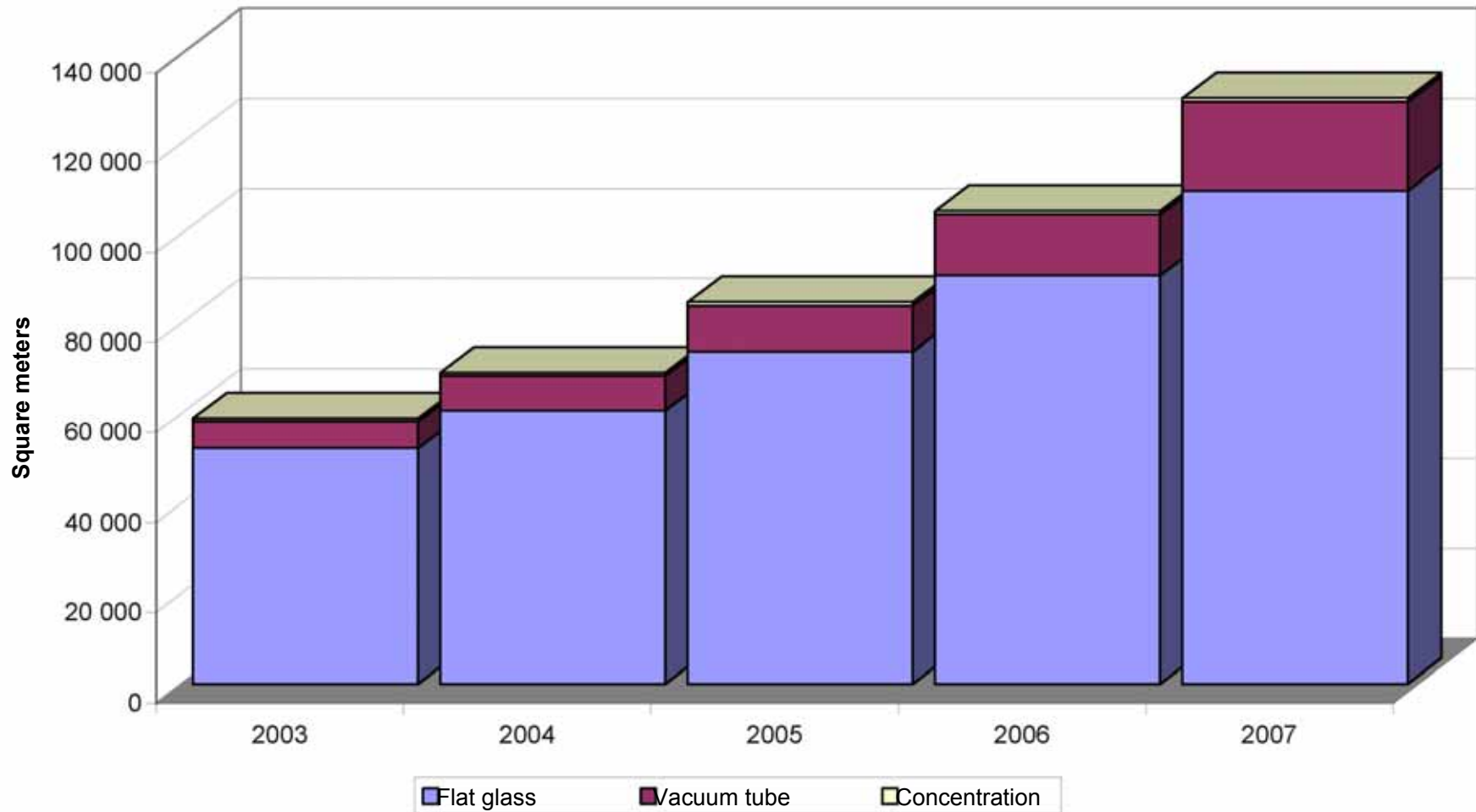
Solar collectors – deliveries in 2003-2007

Share of single collector types delivered into the domestic market



Solar collectors – trend of the total area

Total installed area of active systems



Solar collectors - households

Average installation size in households (year 2005, m²)

	Households (TUV only)	Households (TUV + heating)	Households (pool heating only)
Flat glass	5,8	11,5	9,6
Vacuum tube	3,4	9,5	–
Unglazed absorbers	–	–	8,9

Solar systems in households

Installed about 100 000 m² within 14 000 installations.

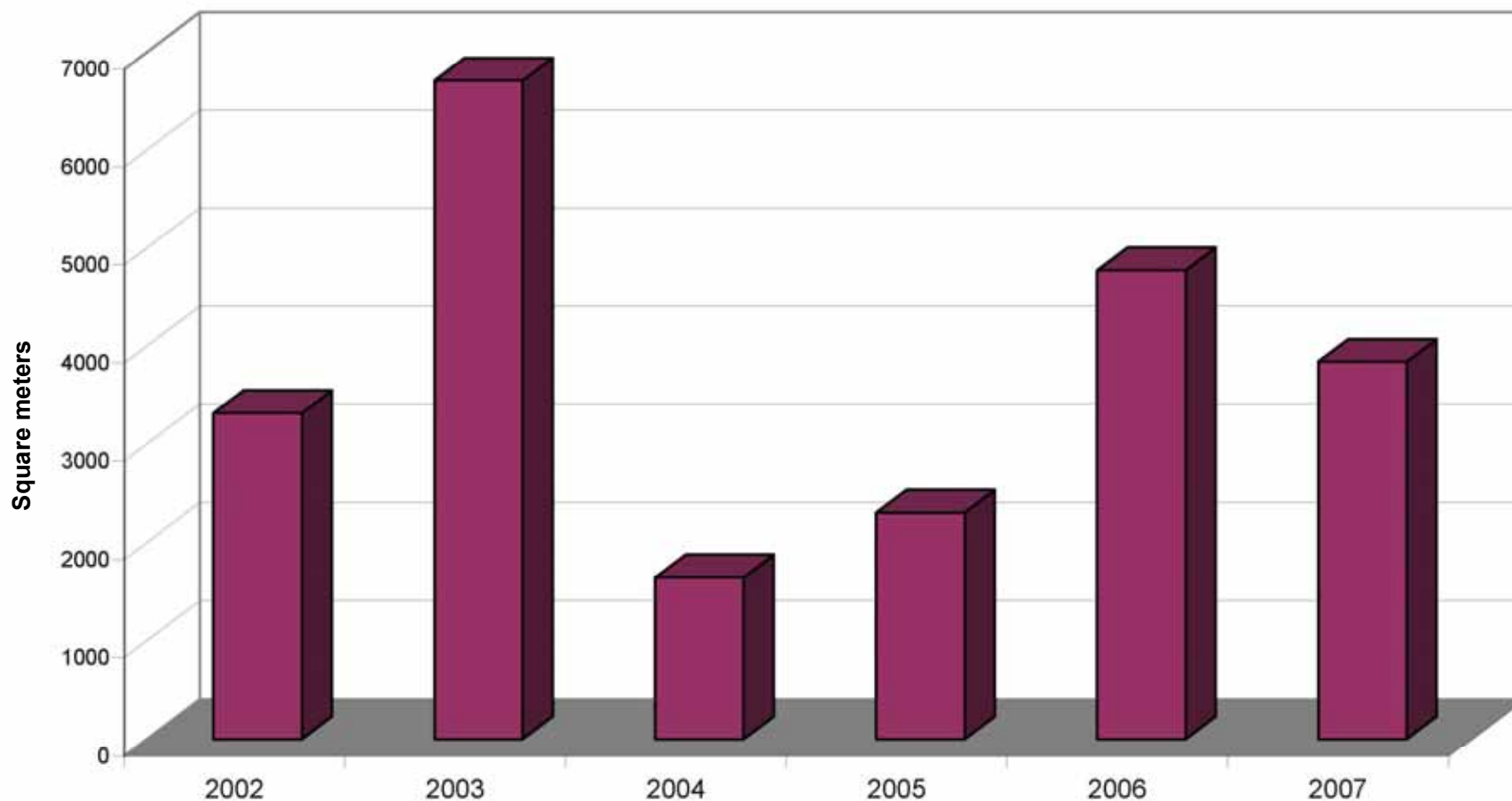
About 1/5 of installations (as for the area) supported from SFŽP.

About 15 % of the area formed by vacuum tube collectors.

Delivery of the pool absorbers - over 70 000 m² per year (2007).

Solar collectors - households

Area of supported solar systems in households with regard to the year of setting to operation



Solar collectors – except households

Solar systems except households (as of 2007)

Installed about 30 000 m².

Old systems from the eighties - about 2 000 m².

Overwhelming majority of large installations given a grant , or from public sources.

Large systems - over 30 m²

Less than 18 000 m² of the total area on about 200 systems.

Smaller systems - below 30 m²

Approximately 23 000 m² on about 4 000 systems.

To be specified - area, number, type, sector, regional division etc.

Solar collectors – year 2008

According to preliminary data of MPO statistics:

Delivered about 35 000 m² of glazed collector into the domestic market

Out of it tube collectors about 8 500 m²

It were delivered about 40-50 000 m² of plastic absorbers

Final summary

Solar systems

State support since the beginning of the eighties.

Rise in price of conventional fuels starts a massive concernment regarding solar systems.

Dynamic growth of the number of companies in the market and order volumes.

Import of tube collectors from China is sharply growing.

Customer does not have a possibility to be well acquainted with the offer.

Large share of endowed systems or systems built from the public sources.

Just few larger solar installations in industry.

High usage of plastic absorbers even in comparison with EU practices.

Data publicity

- **Official publications of the MPO statistics:**

- **Renewable energy sources in 2007**
- **Briquettes and pellets from biomass in 2007**
- **Solar collectors in 2007**
- **Heat pumps in 2007**
- **Coal, coke and briquettes in the Czech Republic in 2007**

www.mpo.cz — Energetics and raw materials — Statistics — OZE

Thanks for your attention

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