

# Our Work on Solar Power Systems

29 October 2009

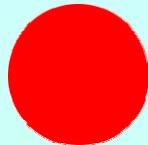


事業開発推進部 新エネルギーグループ



KYUDENKO Corporation Project Development Promotion Division, New energy group

# Inexhaustible solar energy



Solar energy reaching earth  
Approx.  $1.8 \times 10^{17} \text{ W}$

Energy usable by humanity  
Approx.  $1.0 \times 10^{15} \text{ W}$   
(Approx. 0.5 % of all solar energy  
reaching earth)



Energy consumed by humanity  
(2004)  
Approx.  $1.3 \times 10^{13} \text{ W}$

With only about 1.5 % of all usable solar power,  
we could supply all of humanity's needs

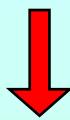


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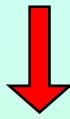
Source: National Institute of Advanced Industrial Science and Technology (AIST)  
Solar Power Research Center (2009)

# Why are solar power systems in demand?

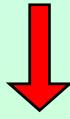
Economic development



Rise in energy demand



Increase in greenhouse gas  
emissions (CO<sub>2</sub>, etc)



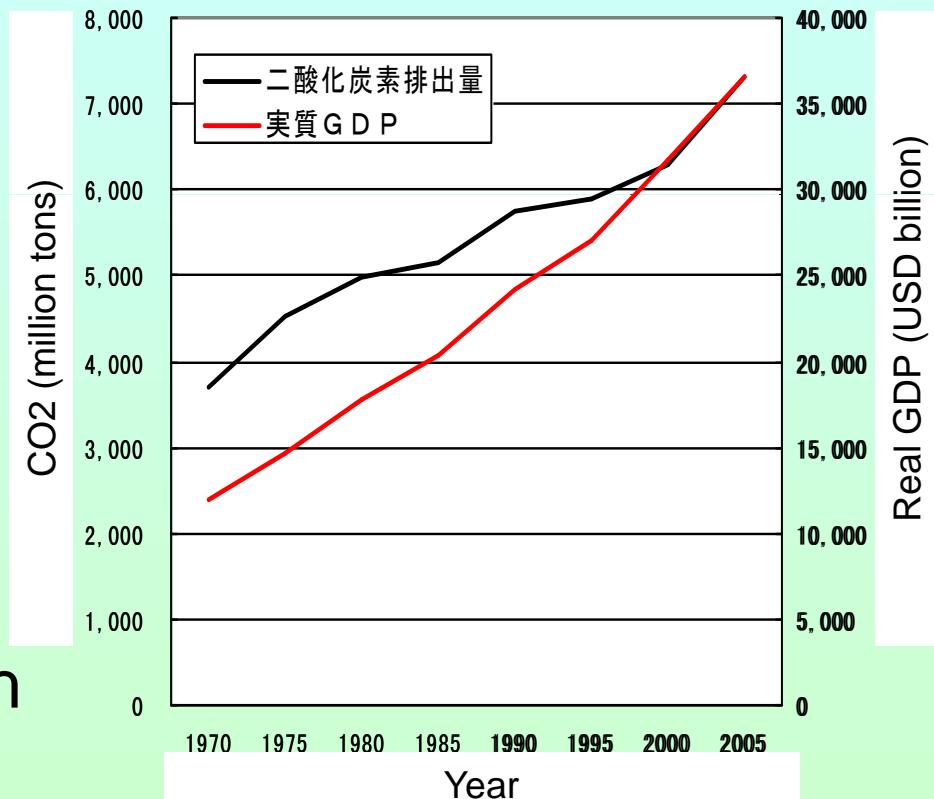
Global warming

Energy sensitive to the earth  
and environment are being  
sought out



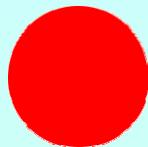
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Economic growth and CO<sub>2</sub> emissions



Source: E D M C Handbook of Energy and Economic Statistics in Japan (2008)

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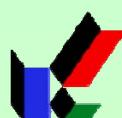
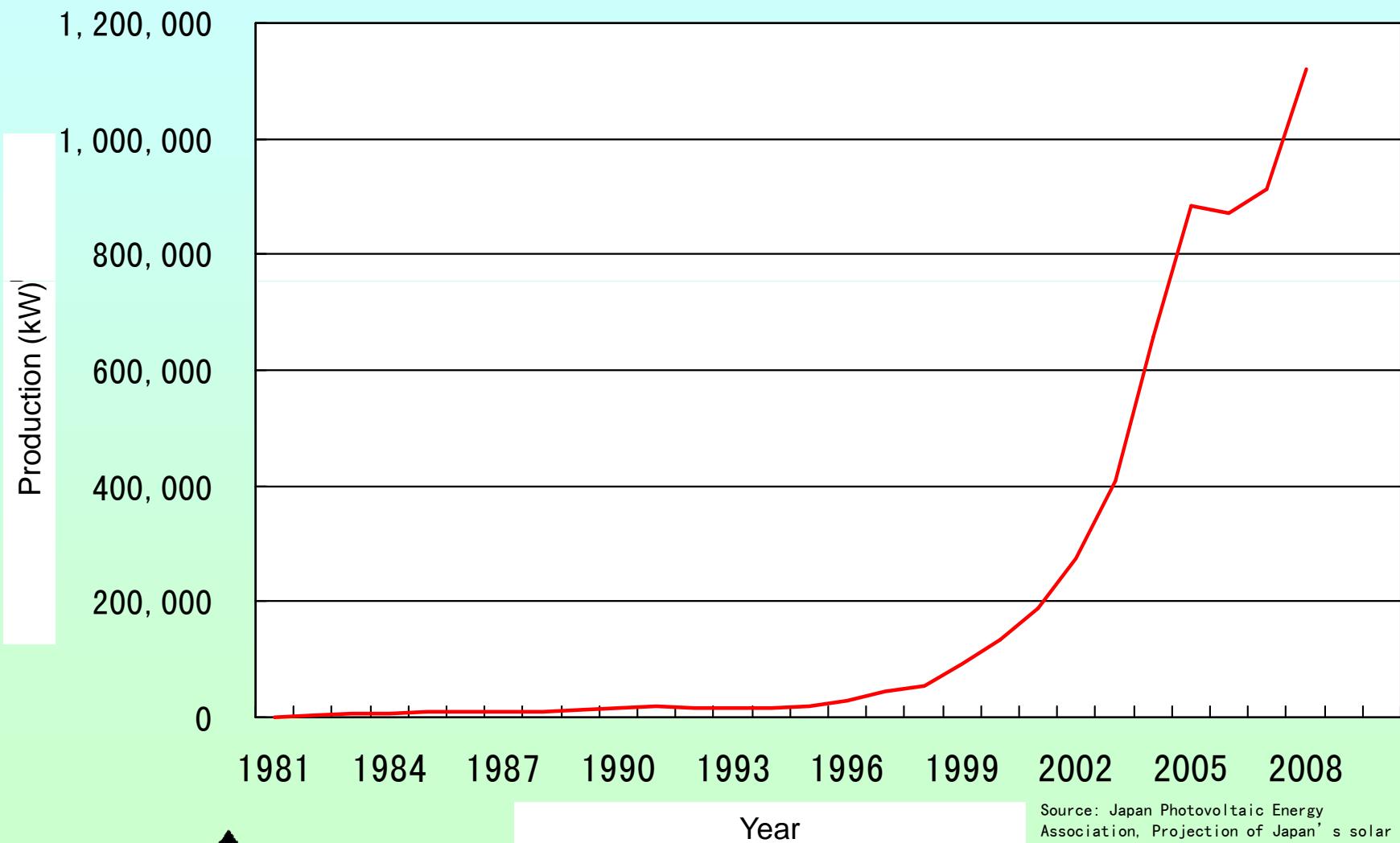
With only about 1.5 % of all usable solar power,  
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Source: National Institute of Advanced Industrial Science and Technology (AIST)  
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## Japan's solar battery production



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Source: Japan Photovoltaic Energy Association, Projection of Japan's solar battery production

# A representative implementation project (Residential panel system 10 kW)



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# System overview (Solar battery array)



Toyota Motor Kyushu ECO Center

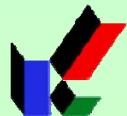


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# System overview (Array support platform)

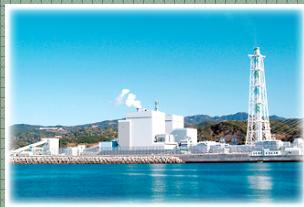


Toyota Motor Kyushu ECO Center



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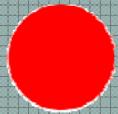
# System overview (Solar battery array)



Power company



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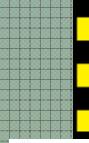
Solar battery panel



Power conditioner  
( Inverter )



Receiving and transformer  
facilities



Point of use



# System overview (Solar battery array)

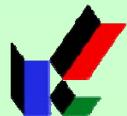


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# A representative implementation project (Saishunkan Pharmaceuticals 1 . 6 MW)



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# A representative implementation project (Huis Ten Bosch 0. 9 MW)



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# A representative implementation project

## (Residential panel system 10 kW)



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# Kyudenko's wind power projects (Nagashima Windhill 50. 4MW)



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