

## **An introduction to the xevo SMA-Eco Original**

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November 10, 2011

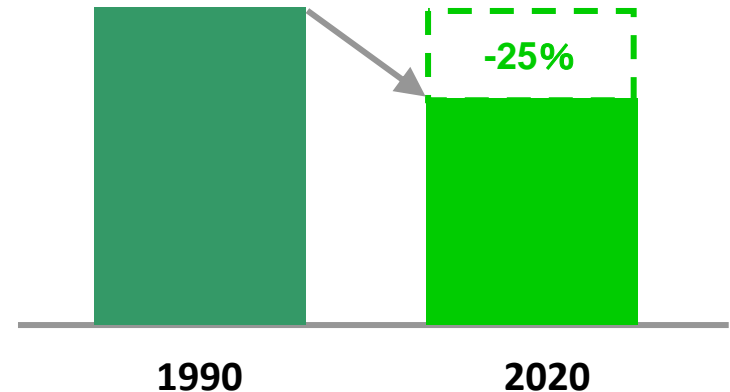
**Daiwa House Industry Co.,Ltd.**

Daiwa House  
Group

# **Background to Development**

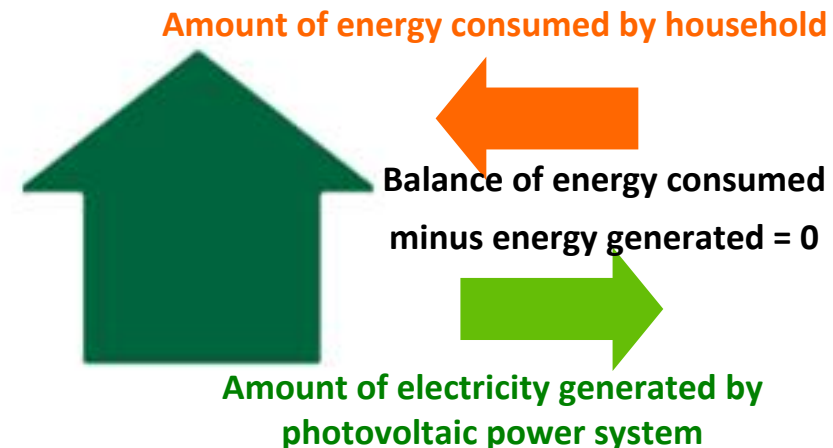
[Announcement at United Nations  
Climate Change Conference]

**Reduction in greenhouse gas emissions  
of 25% by 2020 compared with  
FY1990 level**



Development of **net zero energy house**  
as standard for new home  
construction by FY2020

### Net Zero Energy House



Since the Northeast Japan Earthquake and Tsunami of March 11, 2011, attention has focused on **ensuring the safety of the energy infrastructure in emergencies**



**Recognition of the need for power saving  
has grown strongly**  
due to implementation of planned blackouts



Kankyo-Kobo



2000

xevo FU



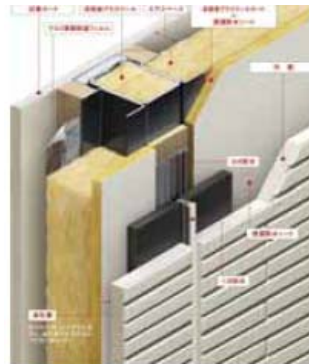
2009

2006

2010

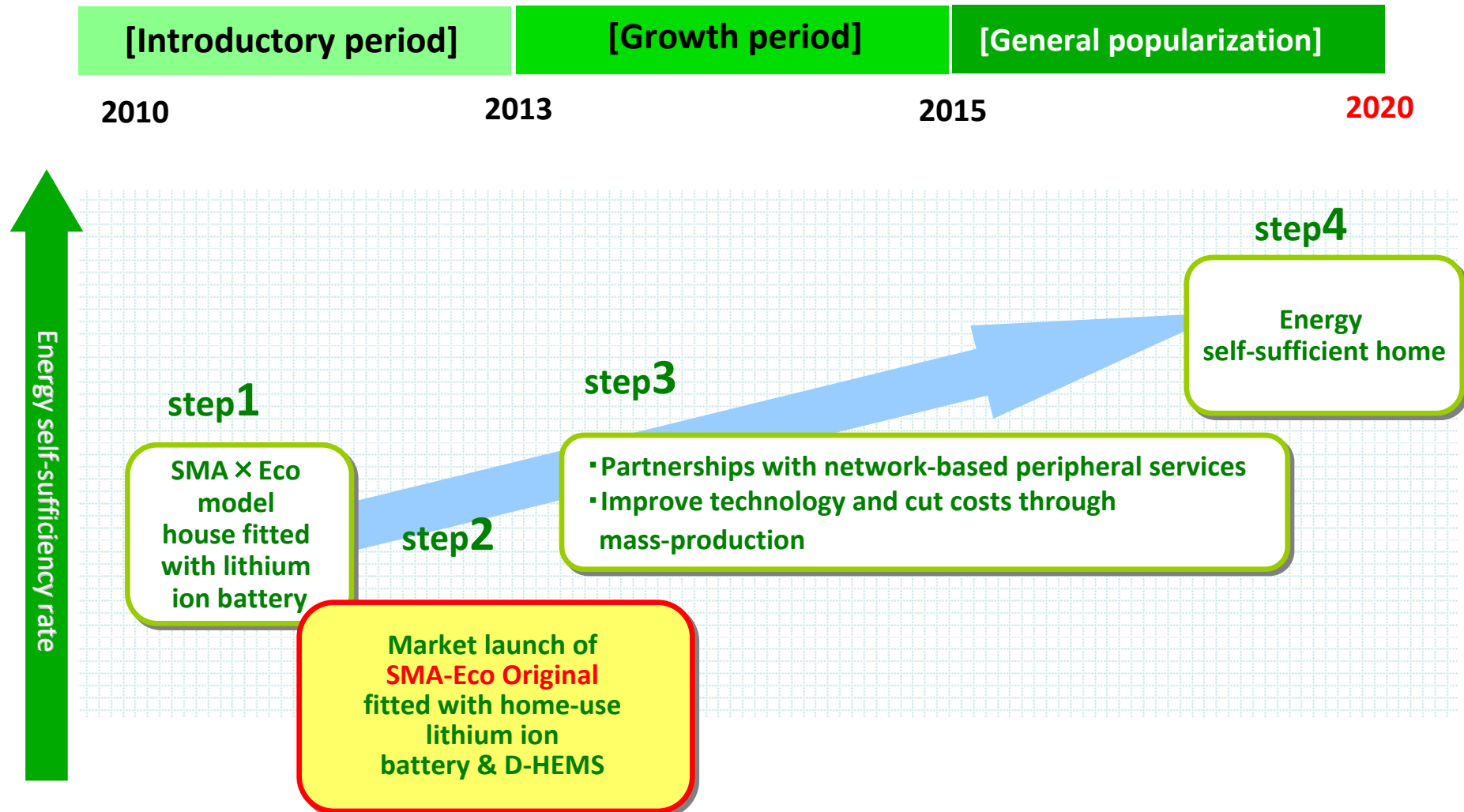


xevo



xevo YU

## Smart xevo Eco project



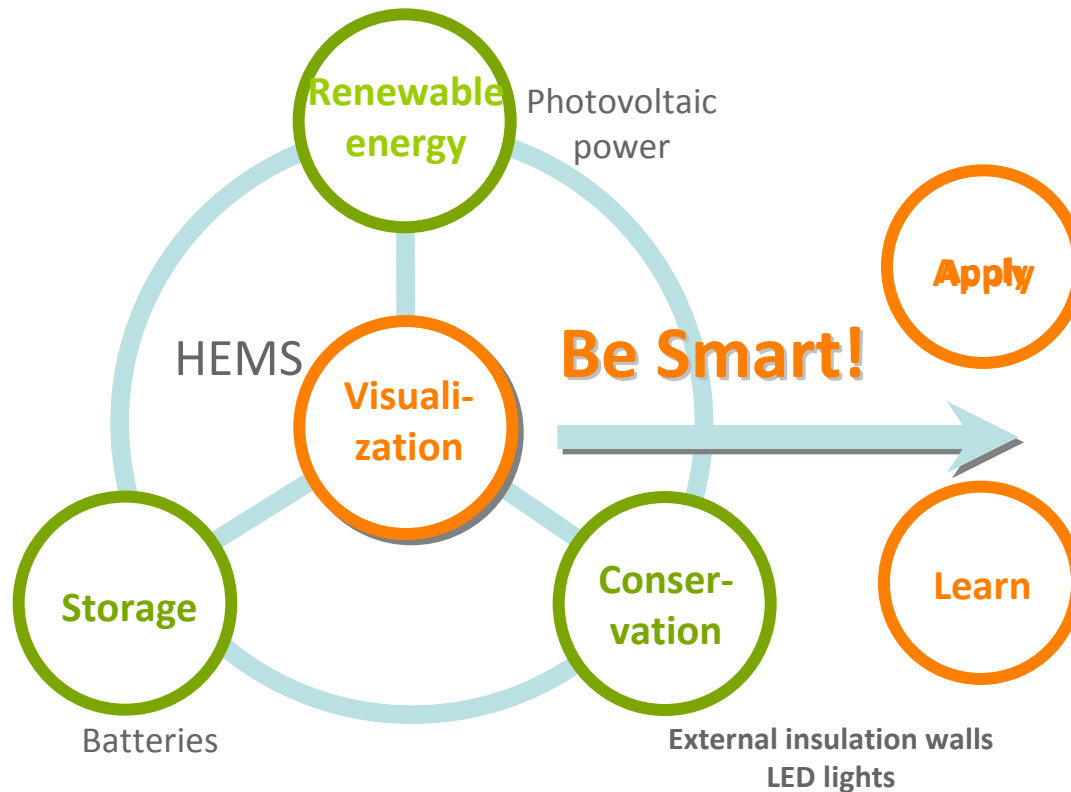
# **Outline of Proposals**



## The Concept:

New lifestyle proposals involving advanced technologies, living in harmony with nature, and using energy more wisely

SMA × Eco HOUSE



Kasukabe Model House (Saitama)



Yagoto Model House (Nagoya)



Senri Model House (Osaka)



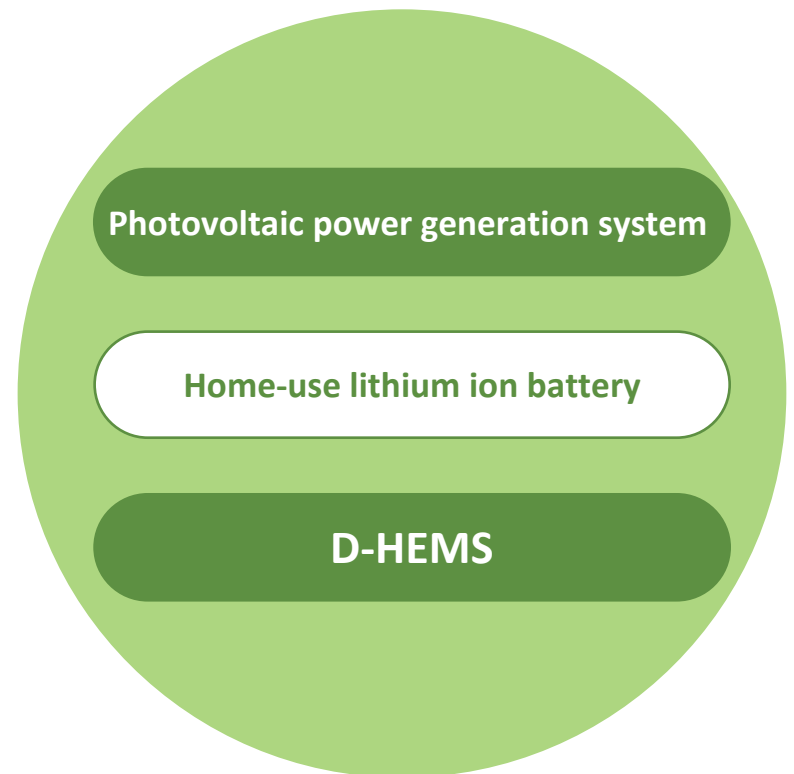
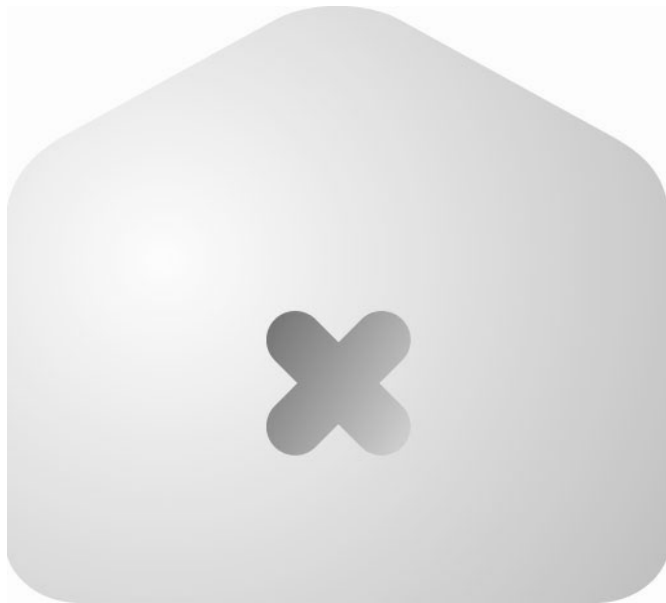
Industry's First! House fitted with lithium ion battery controlled through HEMS

First in Smart House series from Daiwa House

# SMA-Eco Original

xevo

ジーヴォ



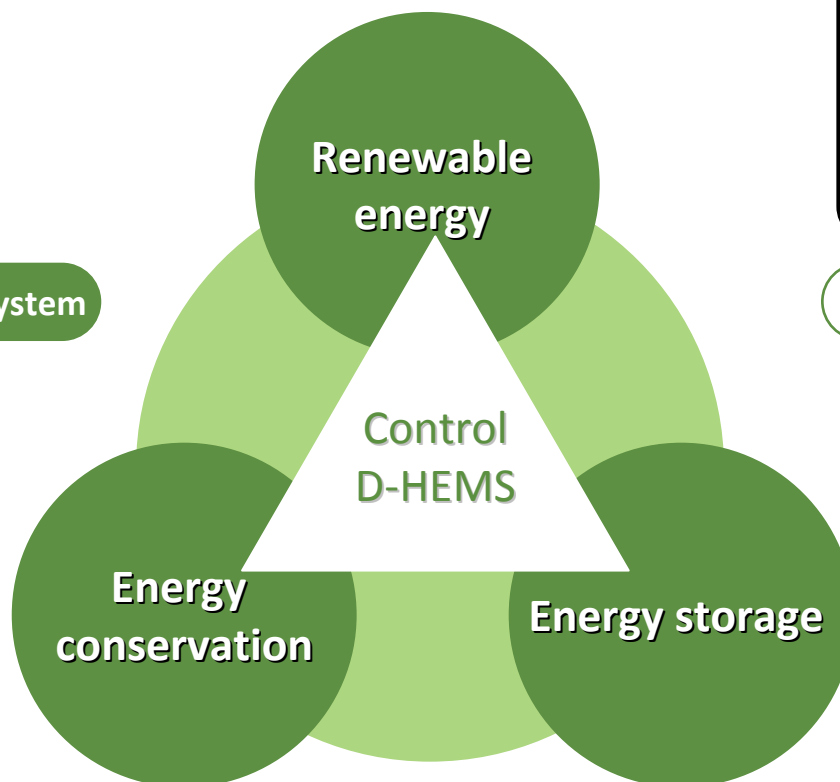
## This is the SMA-Eco Original



Photovoltaic power generation system



Exterior thermal ventilation wall



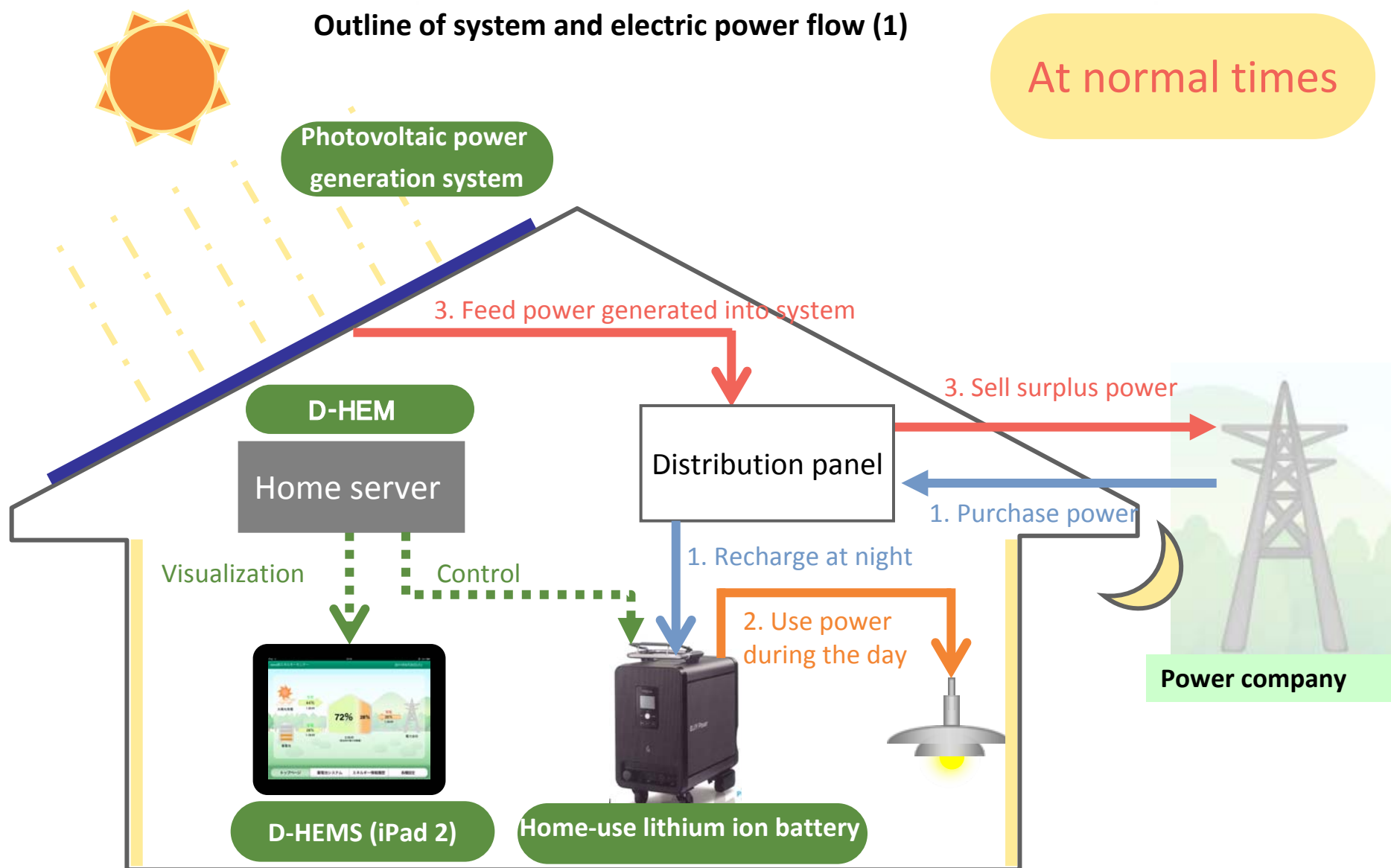
D-HEMS



Home-use lithium ion battery

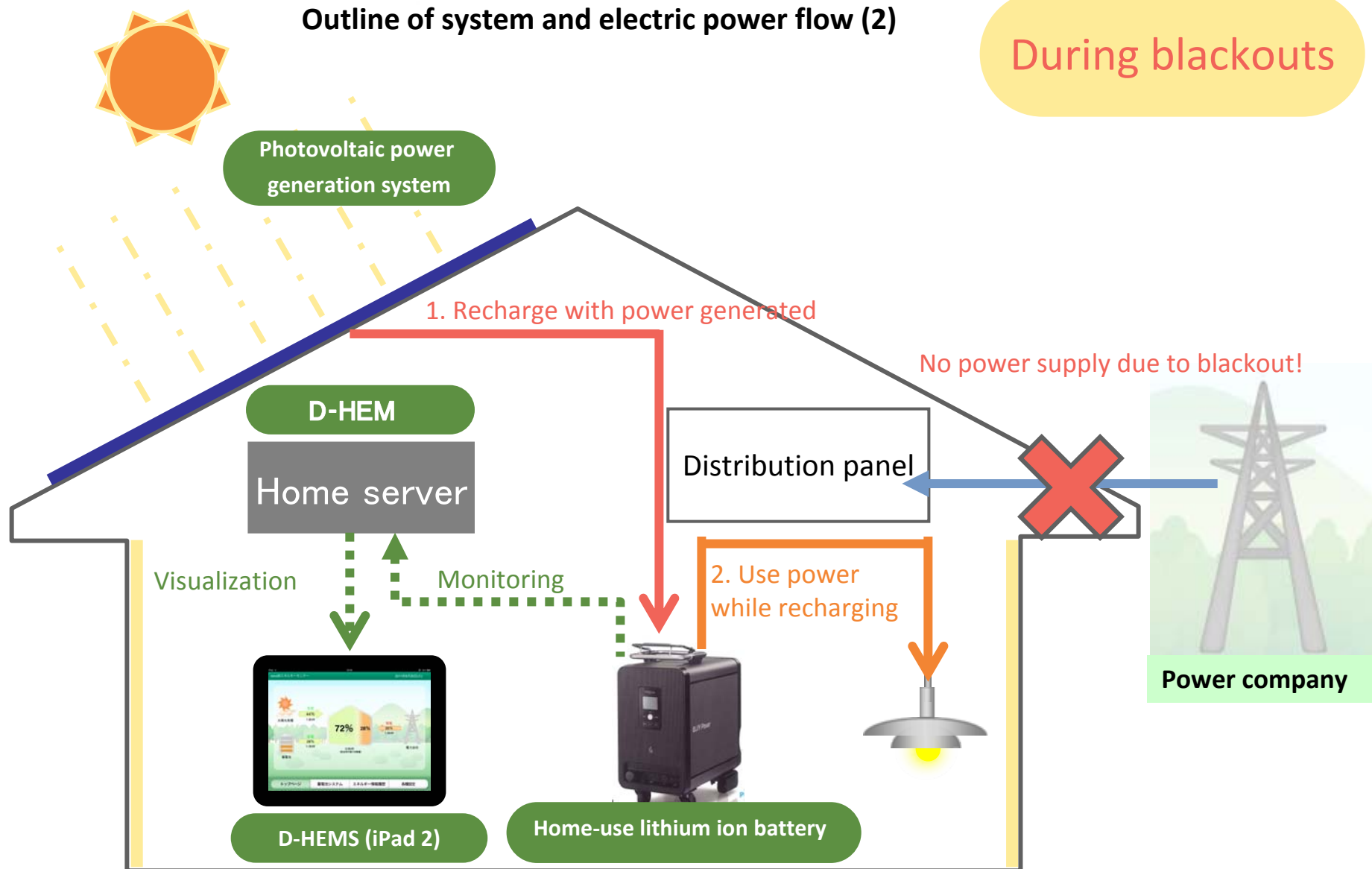
## Outline of system and electric power flow (1)

At normal times



## Outline of system and electric power flow (2)

During blackouts



## Overview of home-use lithium ion battery system

Safety & peace of mind – high-performance, compact  
**2.5kWh lithium ion battery**



High-efficiency, long-lasting

High-performance lithium ion battery, made in Japan

Compact body

Made possible thanks to high density and high output  
Due to compactness, no need to seek out installation site

Very safe

First rechargeable battery to be certified safe  
by world-renowned third-party institution.

No need to worry about power blackouts

Battery will give reliable power supply while being recharged  
from photovoltaic power system.

Support for peace of mind

Fitted with automatic remote monitoring system

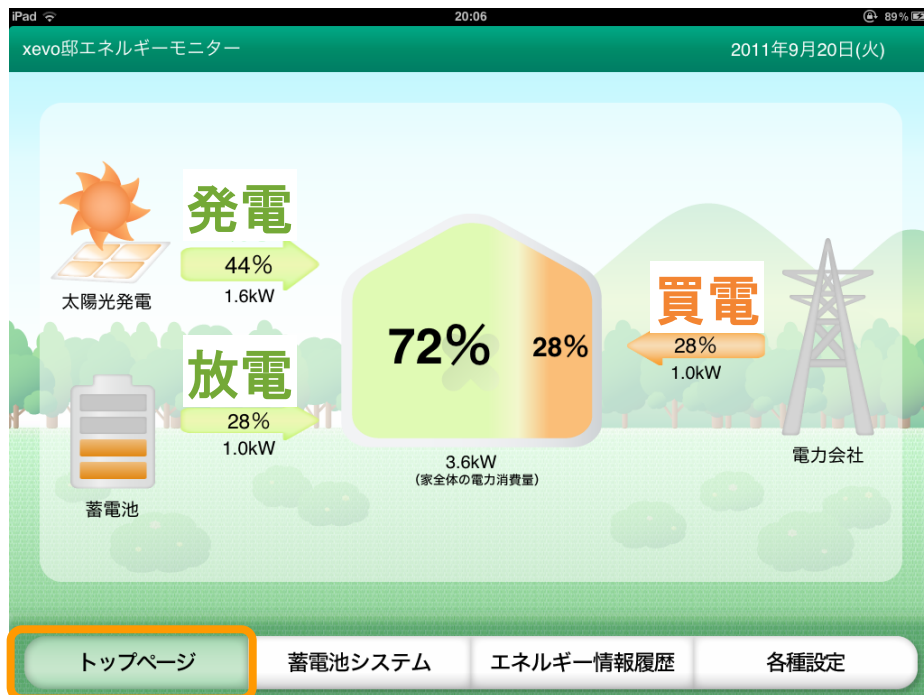


## Overview of D-HEMS system

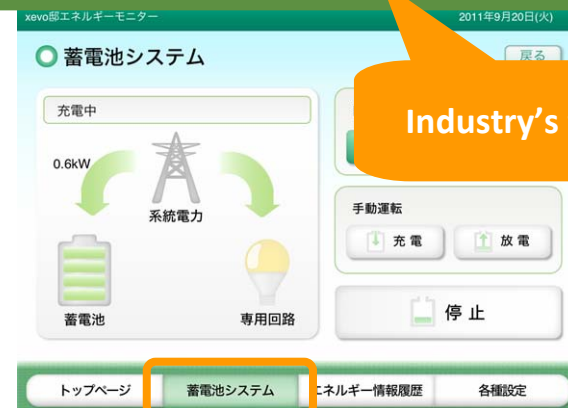
Industry's First!

Home fitted with D-HEMS system for control of storage battery

System displays way in which energy is being used



Storage battery can be controlled



Industry's first!

System displays records of sale of power from photovoltaic generation system



# **Advantages of Proposals**



## Three advantages in everyday life and in emergencies

Effortless power saving  
(use of off-peak power)



Economical and eco-  
friendly (cuts energy  
bills while reducing  
carbon footprint)



Peace of mind – even  
in emergencies  
(power blackouts)



Effortless power saving through use of renewables, energy conservation measures, energy storage technology, and power-use visualization

Concern over power saving is growing throughout Japan

The government and the power utilities are taking the lead in calling on the public to save electricity



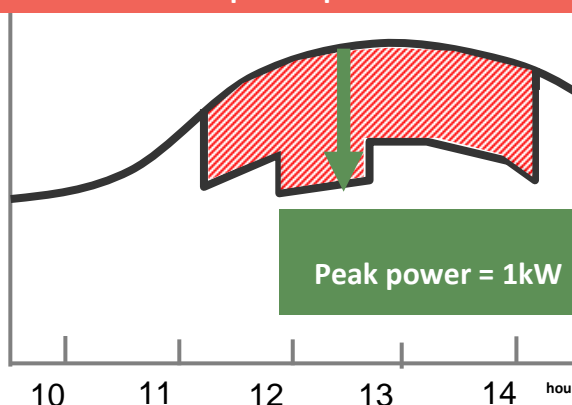
政府の節電ポータルサイト



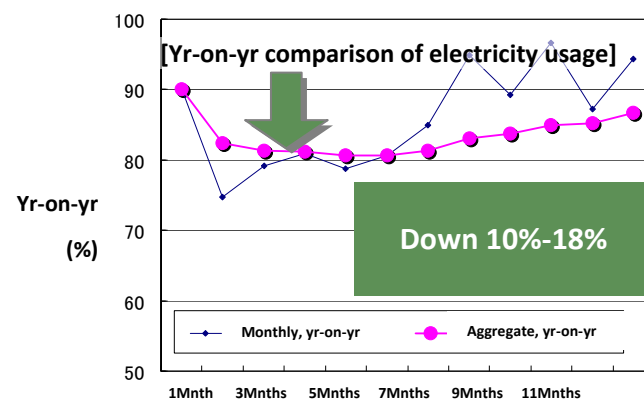
[Source: Ministry of the Environment, Cabinet Secretariat, METI, Kansai Electric Power]

Effortlessly and comfortably realizing peak electricity demand through use of nighttime power for battery recharging

Maximum total power purchased = 2kWh

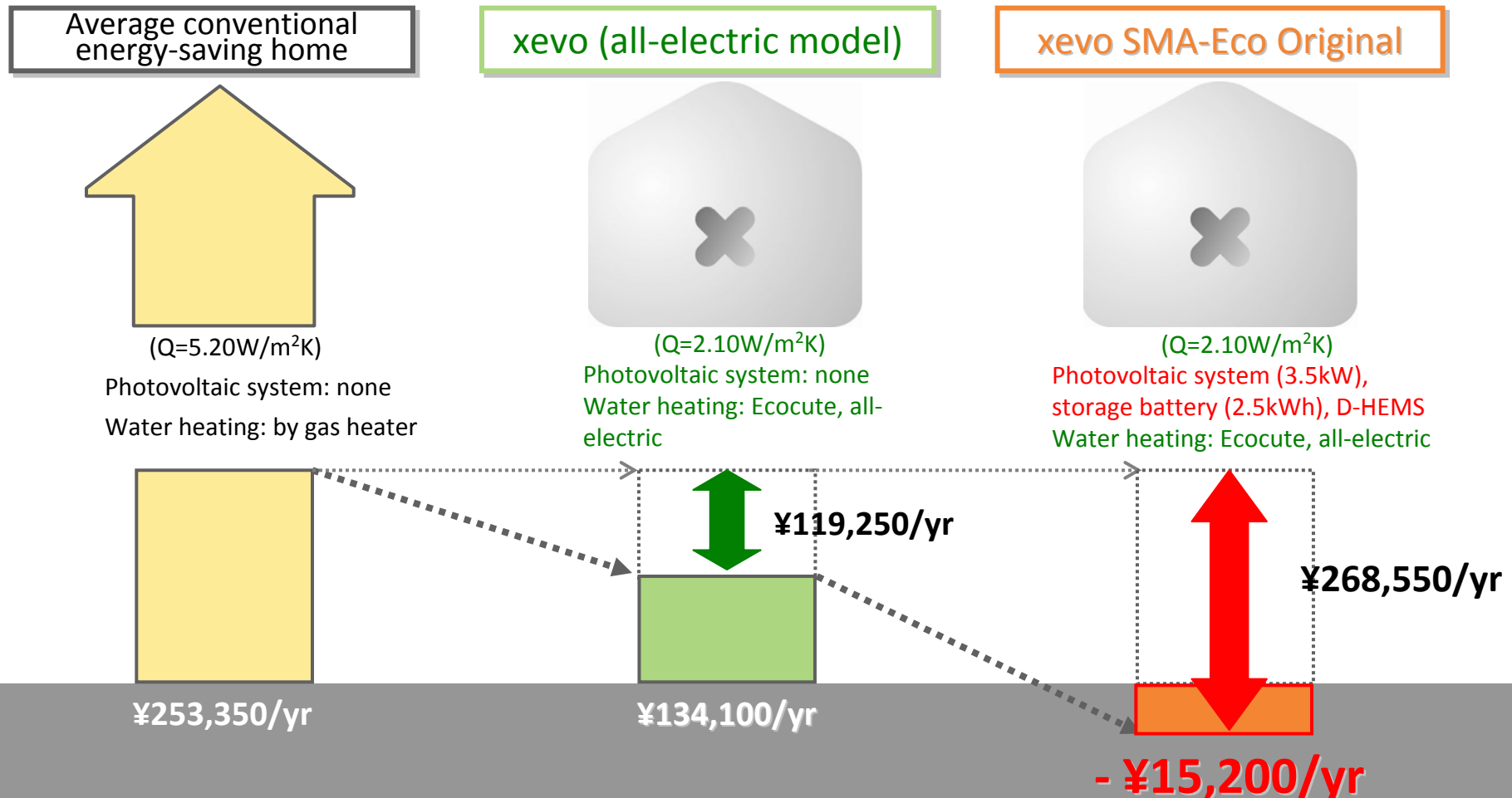


Thanks to **the energy use visualization** enabled by D-HEMS, power use can be **reduced by around 10%.**



[Source: Energy Conservation Center, Japan]

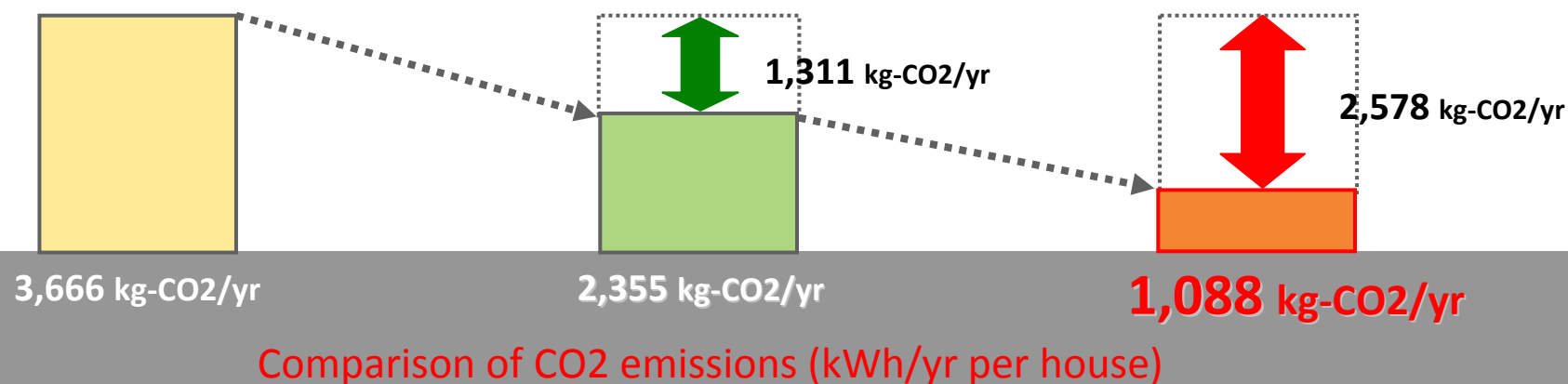
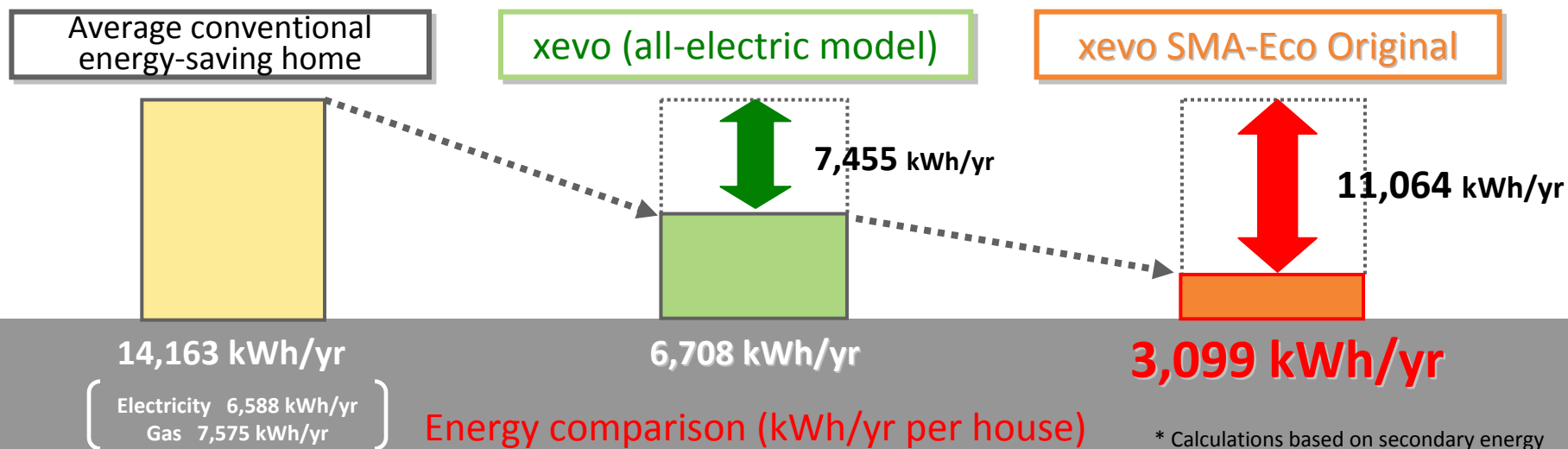
Combination of storage battery + photovoltaic power system + D-HEMS leads to major cuts in energy bills



Energy bill comparison (¥/yr per house)

\* The above calculations are estimates based on the charging systems of Kansai Electric and Osaka Gas

Combination of storage battery + photovoltaic power system +  
D-HEMS leads to improved eco-friendliness



Emergency-use storage batteries – a dependable source of energy when you really need one

It happens more often than you think!

Large-scale blackouts resulting from natural disasters, fires, or other accidents

Mar. 2011	Approx. 5 million households	3 hrs/day
Mar. 2011	8.45 million households	8 days
Aug. 2008	0.8 million households	4 days
Aug. 2006	8.5 million households	4 hours



Image courtesy of Asia Press Front

Power storage system you can **rely on** during blackouts

Summer

Can be operated continuously for approx. 5 hours 45 mins

Lighting  
(100W)

Television  
(100W)

Refrigerator  
(50W)

Electric fan  
(30W)

Winter

Can be operated continuously for approx. 2 hours 45 mins

Lighting  
(100W)

Television  
(100W)

Refrigerator  
(50W)

Electric stove  
(400W)

Spring/  
Autumn

Can be operated continuously for approx. 6 hours 30 mins

Lighting  
(100W)

Television  
(100W)

Refrigerator  
(50W)

# **Marketing Strategy**

<b>Additional costs of conversion to SMA-Eco Original</b>	<p><b>Total: ¥3,921,750 (tax. incl.)</b></p> <p><b>- Breakdown -</b></p> <p><b>Home-use lithium ion battery: ¥1,621,200 (tax. incl.)</b></p> <p><b>D-HEMS: ¥279,300 (tax. incl.)</b></p> <p><b>Photovoltaic power generation system (3.5kWh): ¥577,500/kW (tax. incl.)</b></p>
<b>Applicable products</b>	<b>Steel-frame and wooden structure houses in the xevo series (excluding certain models)</b>
<b>Sales target</b>	<b>350 homes by March 31, 2012</b>
<b>Sales area</b>	<b>All of Japan excluding Okinawa and remote islands</b>
<b>Monitor Sales Benefits and time frame</b>	<p><b>Monitor price: The product will be sold to selected product monitors at a special discount of ¥1,638,000 below the set price.</b></p> <p><b>Monitor sales period: Oct. 1 to Nov. 30, 2011</b></p> <p><b>* Monitors must be able to take possession of the house by March 31, 2012.</b></p>



## **Future Initiatives**

## ■ Creating new value-added, mainly through smart houses





**Daiwa House**®  
Group

Thank you.

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