

Keys to encourage energy conservation behaviors: Case of Japan

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Japan's approach to encourage energy conservation behavior

A. Raising awareness approach

1. Provide information about products' energy efficiency
2. Identify and promote practical ways to save energy

B. Subsidies approach

3. Subsidy for energy efficient products (inaugural inducements)

C. Regulatory approach

4. Regulatory standard-setting
5. Regulations to assure responsible behavior

1. Raising awareness: Give consumers information about products' energy efficiency.

■ Energy conservation labeling

Year of introduction: 2000

Scope of products:

(21 products are approved at the moment)

Passenger vehicles, Freight vehicles,
Air-conditioners, Fluorescent lamps,
Television sets, Refrigerators, Freezers,
Water Heaters, Cooking appliances

Labeling for vehicles



Achievement level
of fuel economy

Labeling for home appliances

2007年度版

Energy-saving performance
of this product

100%
未済

省エネ基準達成率
100%以上

	Accomplishment percentage	Annual consumption
目標年度 2003年度	119%	56 kWh/y

| メーカー名 | 機種名

Expected annual electricity bill

1,230円

使用期間中の環境負荷に配慮し、省エネ性能の高い製品を選びましょう。

2. Raising awareness: Identify and promote practical ways to save energy

■ Promotion of energy saving behavior

An example: Promotion of “Eco Friendly Drive”

- The government developed the “Eco Drive 10 Advices” and promoted it through website, advertisement and conferences in cooperation with local governments.

Eco Drive 10 Advices

1. “Soft Acceleration, e-Start”
2. “Drive with Less Acceleration and Deceleration”
3. “Release the Accelerator Early”
4. “No Unnecessary Idling”

(There are 6 more advises following after the above)

※ “ふんわりアクセル[eスタート]”のコツ ※AT車に臨む

焦っていると、ついアクセルを踏みすぎてしまうものです。早めに出発して、ゆったりとした気分で運転してください。

1. 発進	2. 加速	3. 維持
ブレーキからアクセルへ一呼吸おく感じで足を移します。	アクセルに足を乗せる感じで踏み始めます。	速度の上昇と共に徐々に踏む力を増やします。

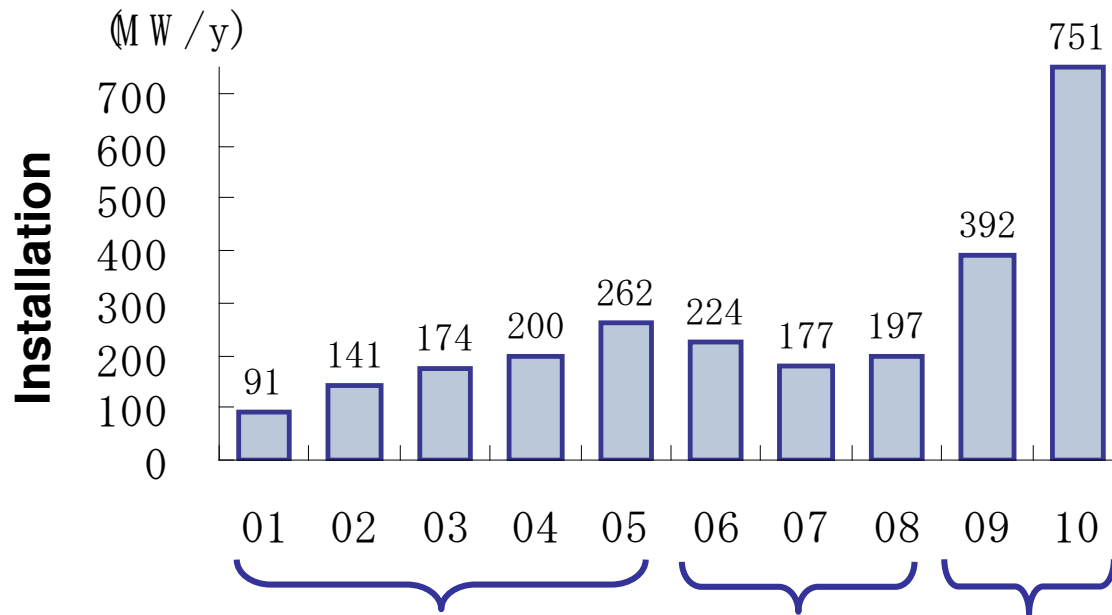
流れの速度

スピードが流れの速度になる手前で、アクセルを少し戻す。

3. Subsidies for energy efficient products: For Inaugural inducements

- Japanese government has been providing (or had provided) subsidies to energy efficient products, such as energy efficient air conditioners, water heaters, vehicles, manufacturing equipments and photovoltaics.

Installation of PVs in residential sector in Japan



Source: Japan Photovoltaic Expansion Center

Subsidy	Available	Not available	Available
Market	Increased	Decreased	Increased

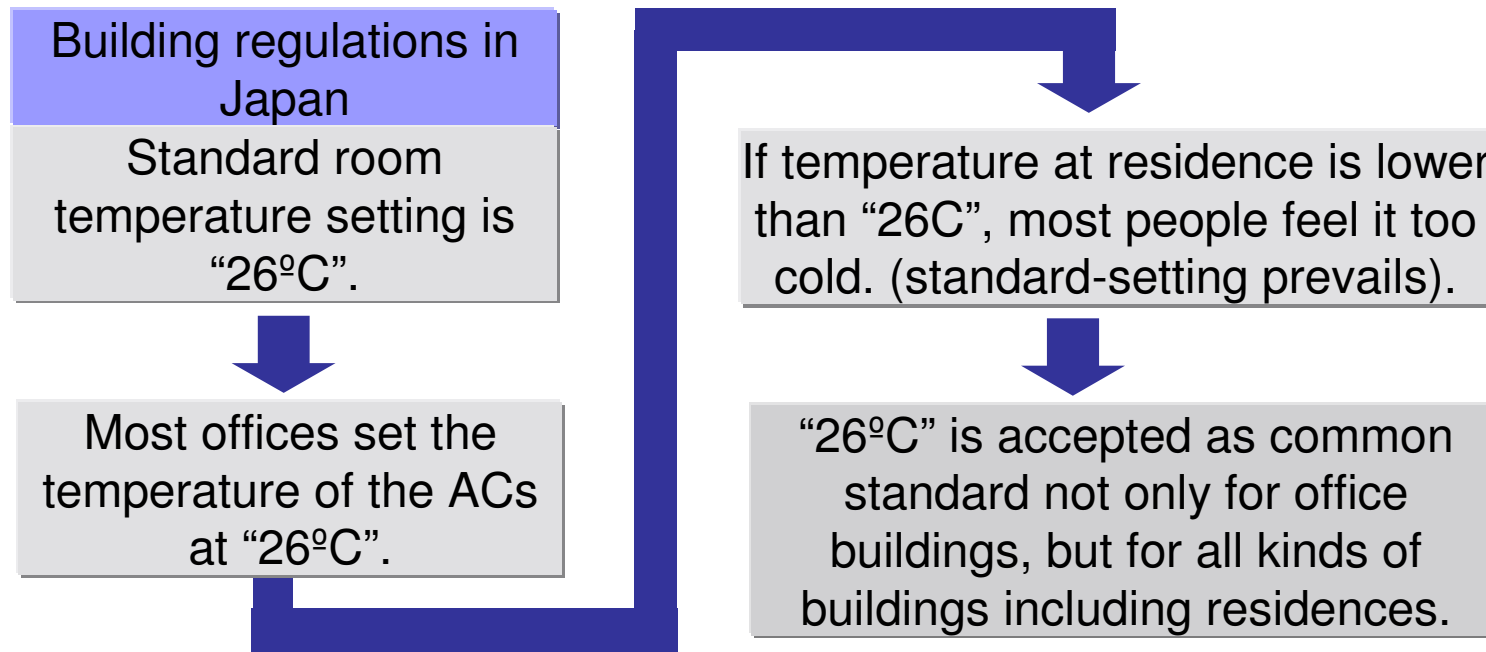
Subsidy affected the purchase behavior of end users.

4. Regulations: Standard-setting

■ Regulations on buildings

- Although main objective of regulations on buildings is to improve its envelope design, some of the regulations are to encourage energy saving public behavior.

i.e.) Standard temperature setting

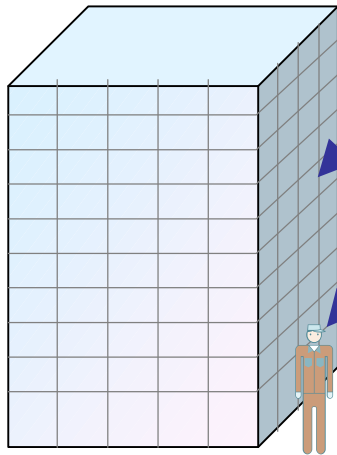


5. Regulations: Assurance for responsible behavior

■ Regulations to reduce energy consumption by management

- In Japan, buildings with high energy consumption (more than 3000 kiloliters in oil equivalent) is designated as “Designated Energy Management Buildings”.

Designated Energy Management Buildings



- Owner of the building must reduce the energy consumption of building by 1% every year.
- Owner must appoint an energy management specialist with a license of “energy manager” for each building.



- Building owners and energy managers need to consider all the measures to improve energy efficiency of their building, including the followings.
 - ✓ Better usage of energy system of the building
 - ✓ Raising awareness among their employees

4. Conclusions

Japan is successful for promoting energy saving public behavior

- Energy consumption per GDP is the least among developed countries.

Key to success: Balanced mixture of 5 factors

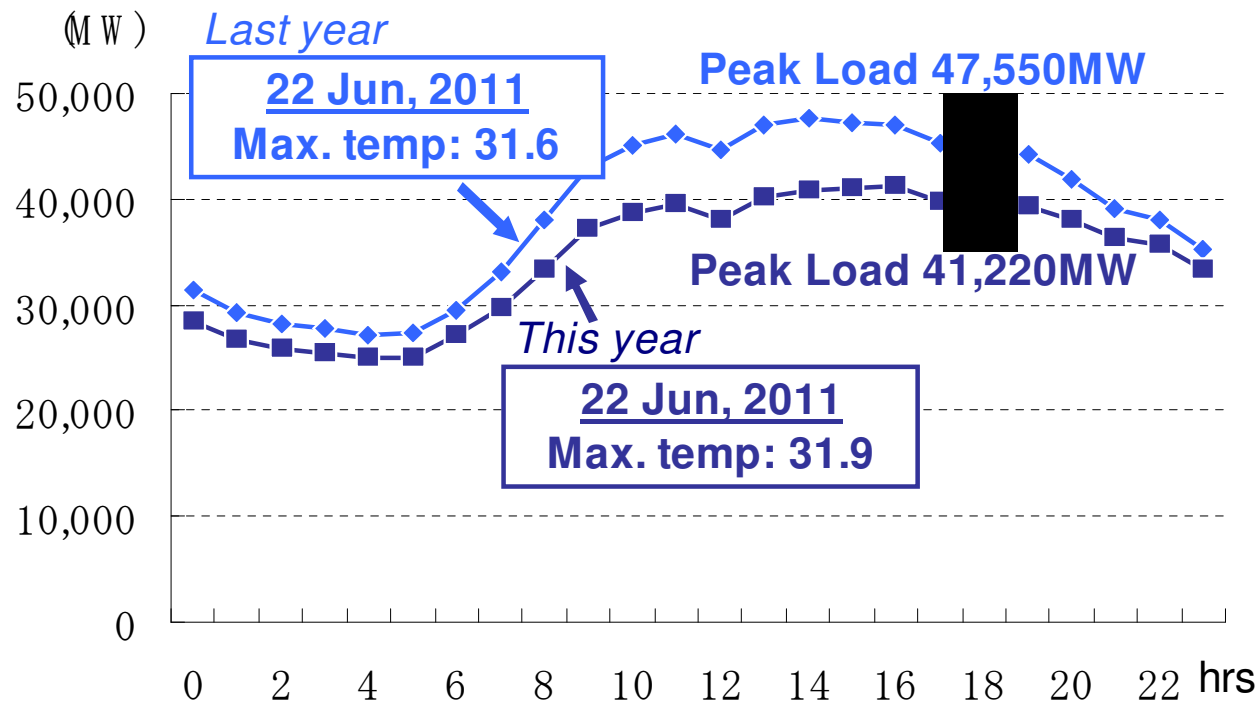
To provide the public

- /information about products' energy efficiency,**
- /information about practical ways to save energy,**
- /inaugural subsidy for certain products**
- /regulatory standard for energy consumption**
- /regulatory assurance for responsible behavior**

For your information: Japan's further challenge

- Given the recent electricity supply shortage, Japan is trying to cut 15% of its energy consumption. Energy saving public behavior is critically important and the data shows it is so far successful.

Electricity load in Tokyo Electric Company
(Comparison of 2010 and 2011)



Thank you for your kind attention

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