

Integration of Residence and Transportation into Energy Infrastructure



Sustainable Energy & Environmental
Strategy Planning Dept.

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Key Word of Next Generation Energy Network



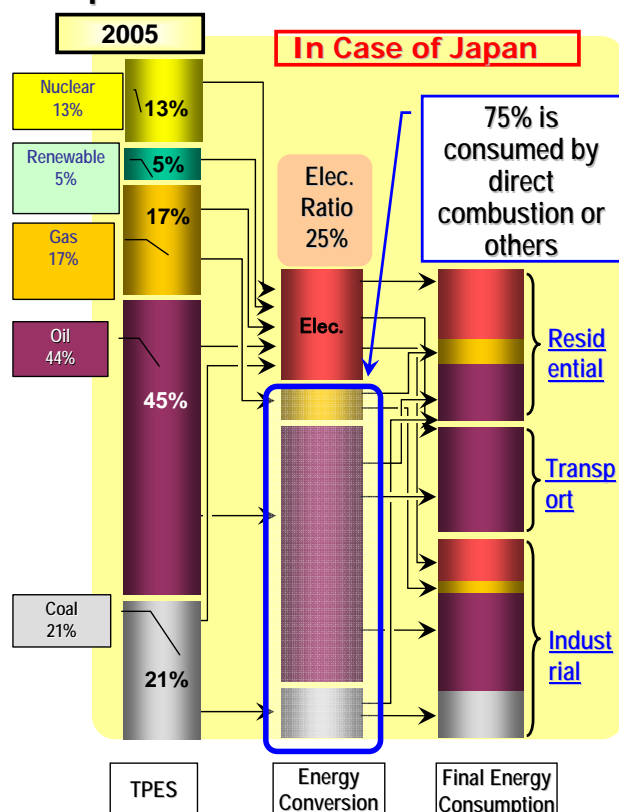
- **Promotion of Electrification**
- **Regional Generation & Regional Consumption**
- **Integration of Residence & Transportation System to Energy Infrastructure**

To reduce CO₂ emission, expansion of renewable energy generation is required. Popularization of Electric Vehicle is most suitable way for expansion of renewable energy, since it can function as an absorber of the fluctuating uncontrollable energy.



Necessity of Innovative Electric Network

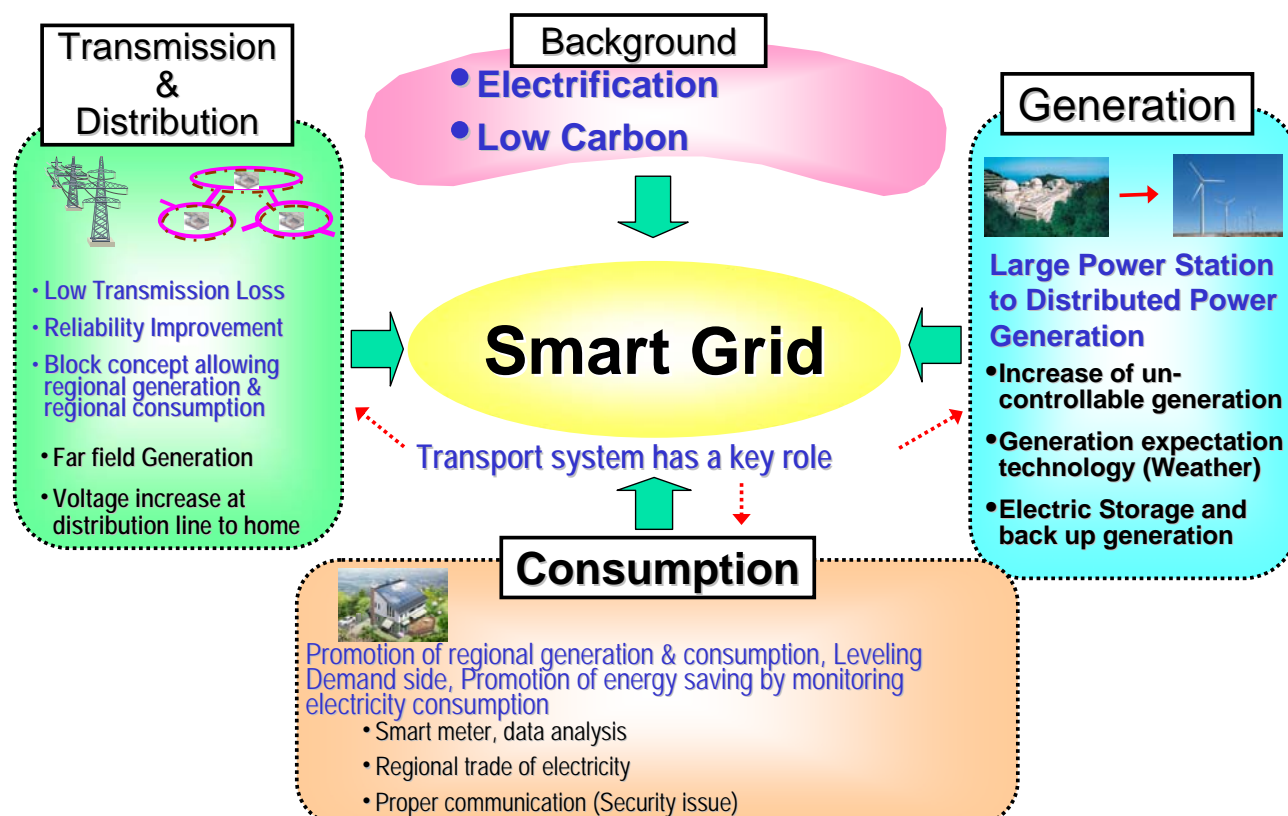
➤ Improvement of Electrification is indispensable for efficient energy use.



- Social Needs**
- Departure from Fossil Fuel
 - Energy saving
- ➔ Improvement of Electrification
1. Electric Energy is higher efficiency, clean, and easy to use. (motor, EV, Heat Pump, etc.)
(電気は効率的でクリーン)
 2. Complete Electric Infrastructure already exists. (電力網は既に存在する)
 3. Possible to improve energy efficiency by controlling supply/demand with IT Collaboration.
(IT技術で需給を制御し更なる効率化)
 4. Possible to manage CO₂ at Supply Side in block.
(供給側で、纏めてCO₂を集中処理可能)

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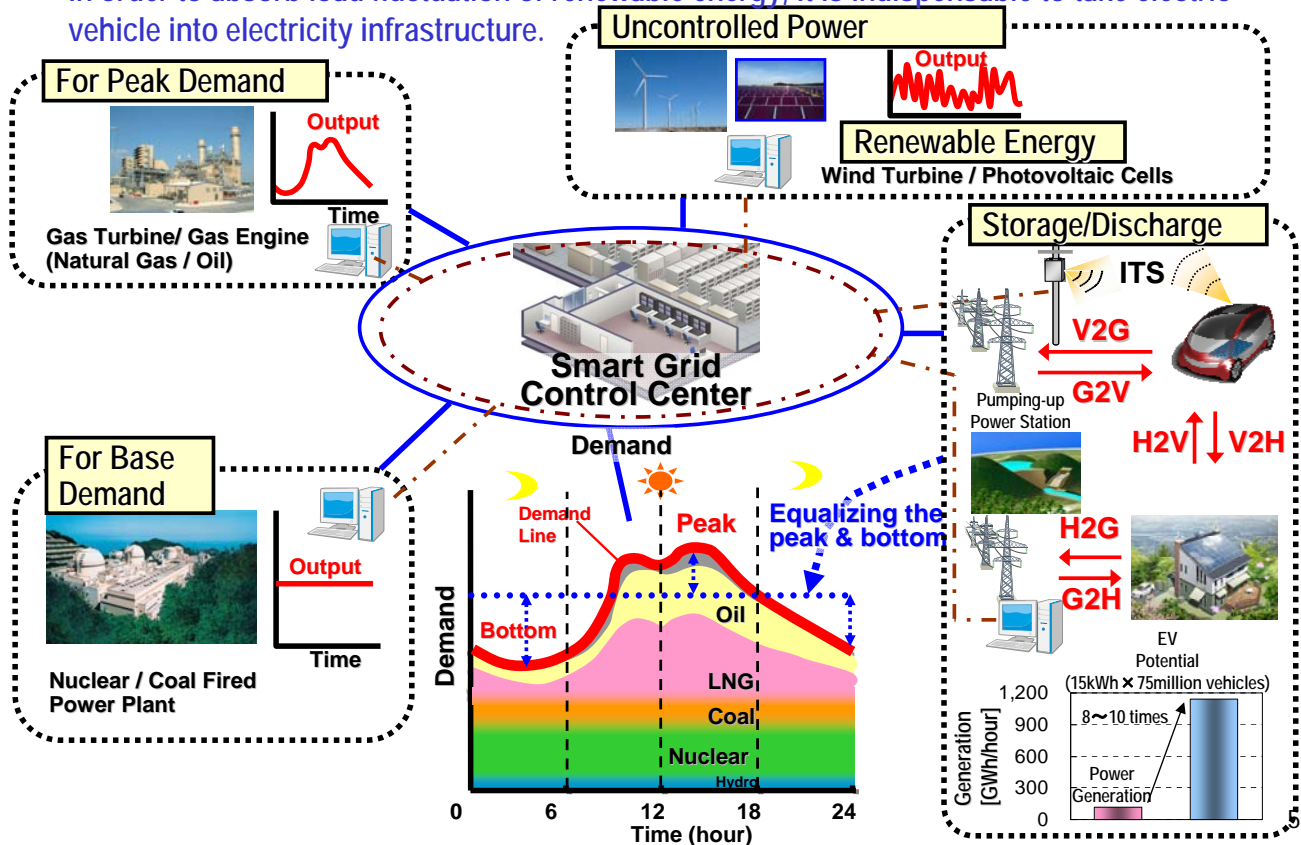
Category of Current Smart Grid Discussions



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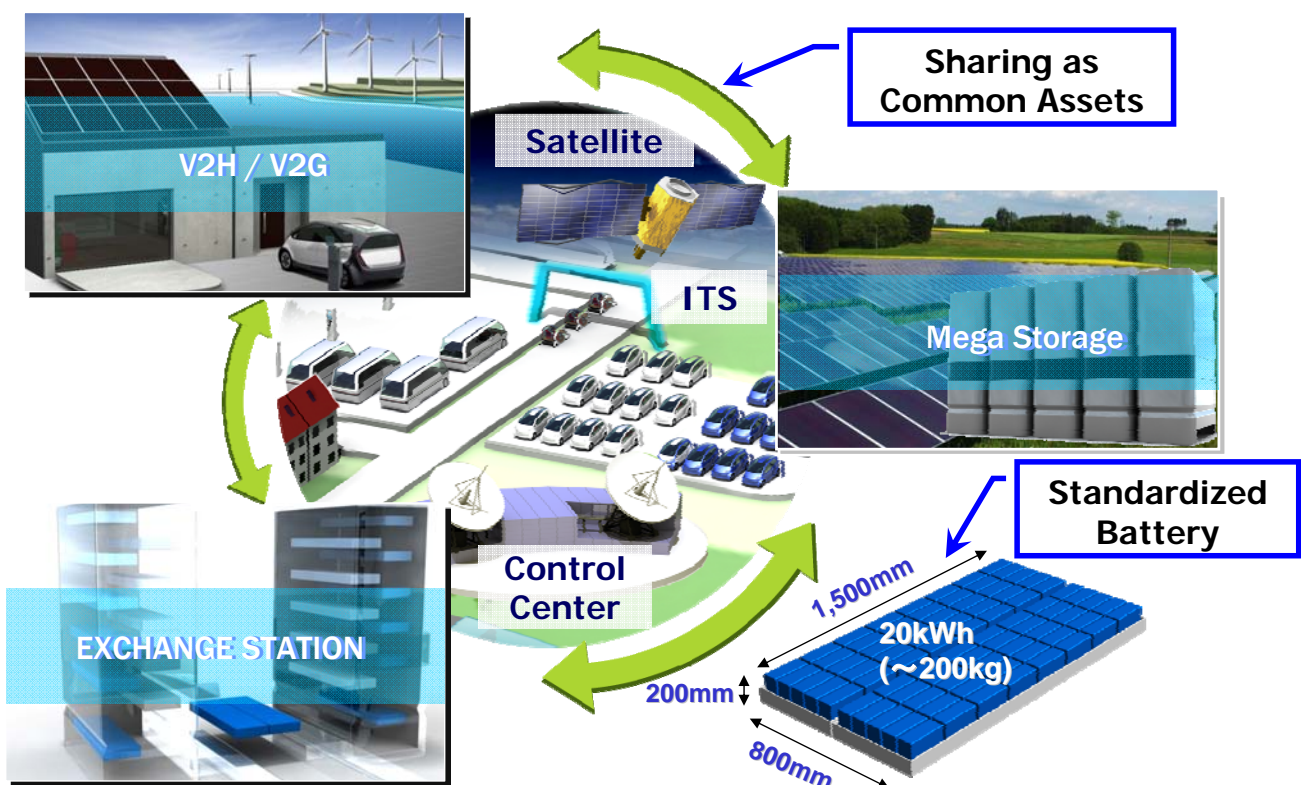
Concept of Innovative Electric Network

In order to absorb load fluctuation of renewable energy, it is indispensable to take electric vehicle into electricity infrastructure.

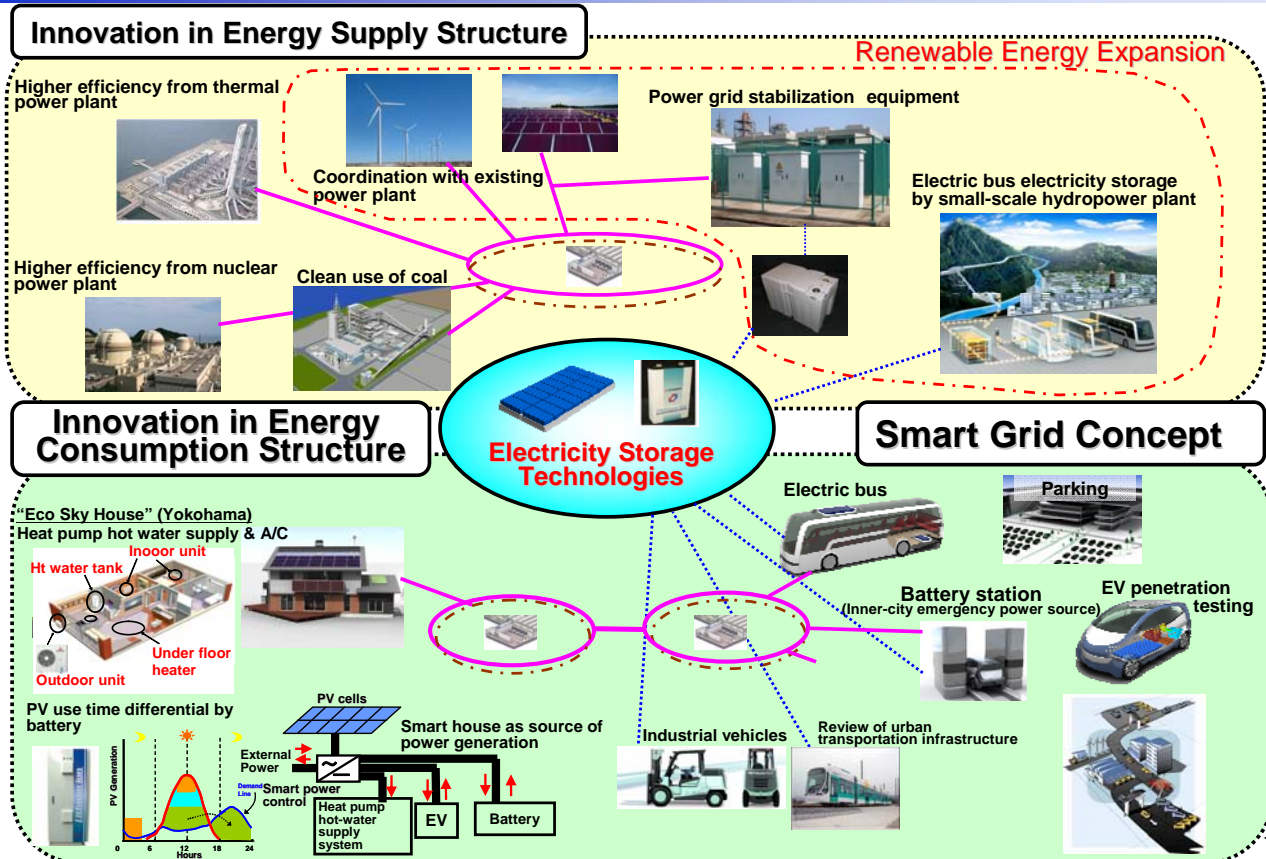


Points for the Integration

➤ Main Items are Standardized Battery, Common Assets, and ITS.

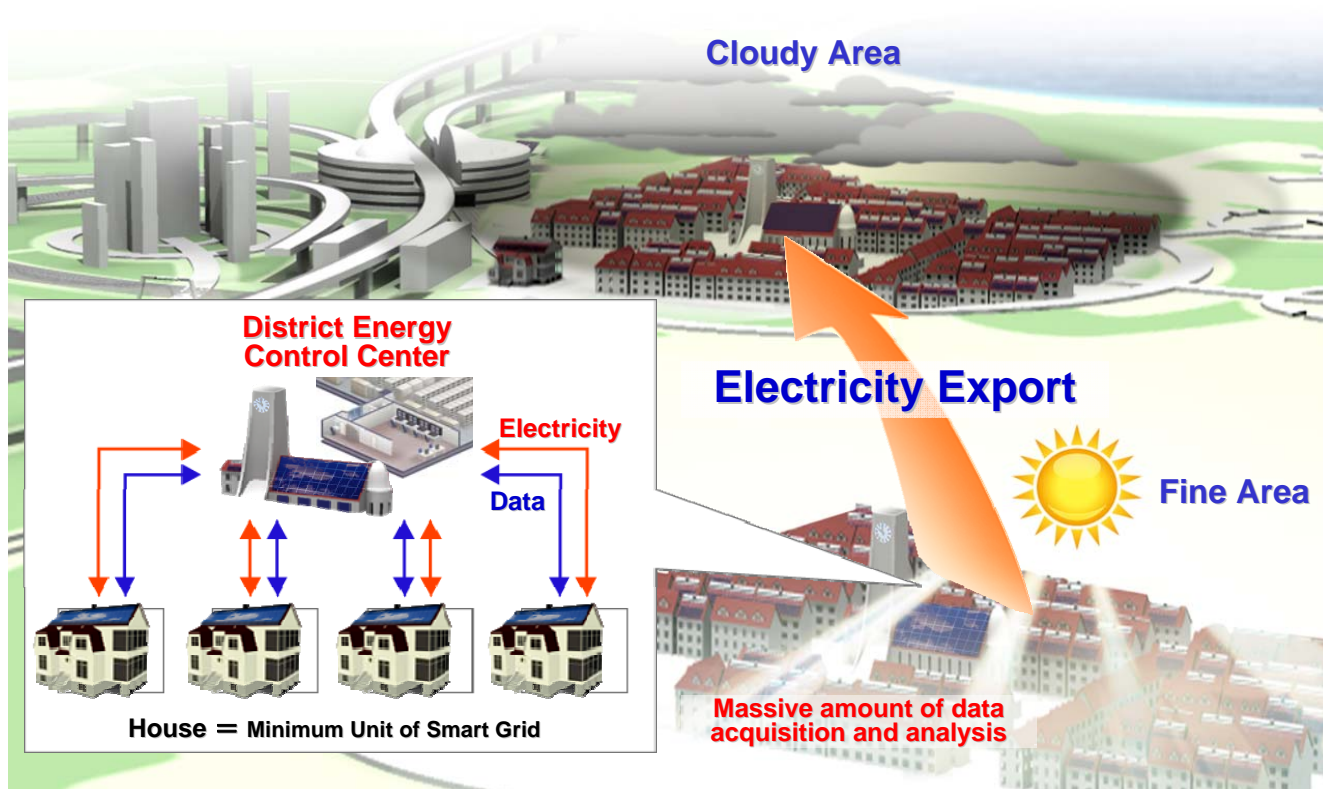


Energy Infrastructure Rebuilding Scheme



Integration of Residential Sectors

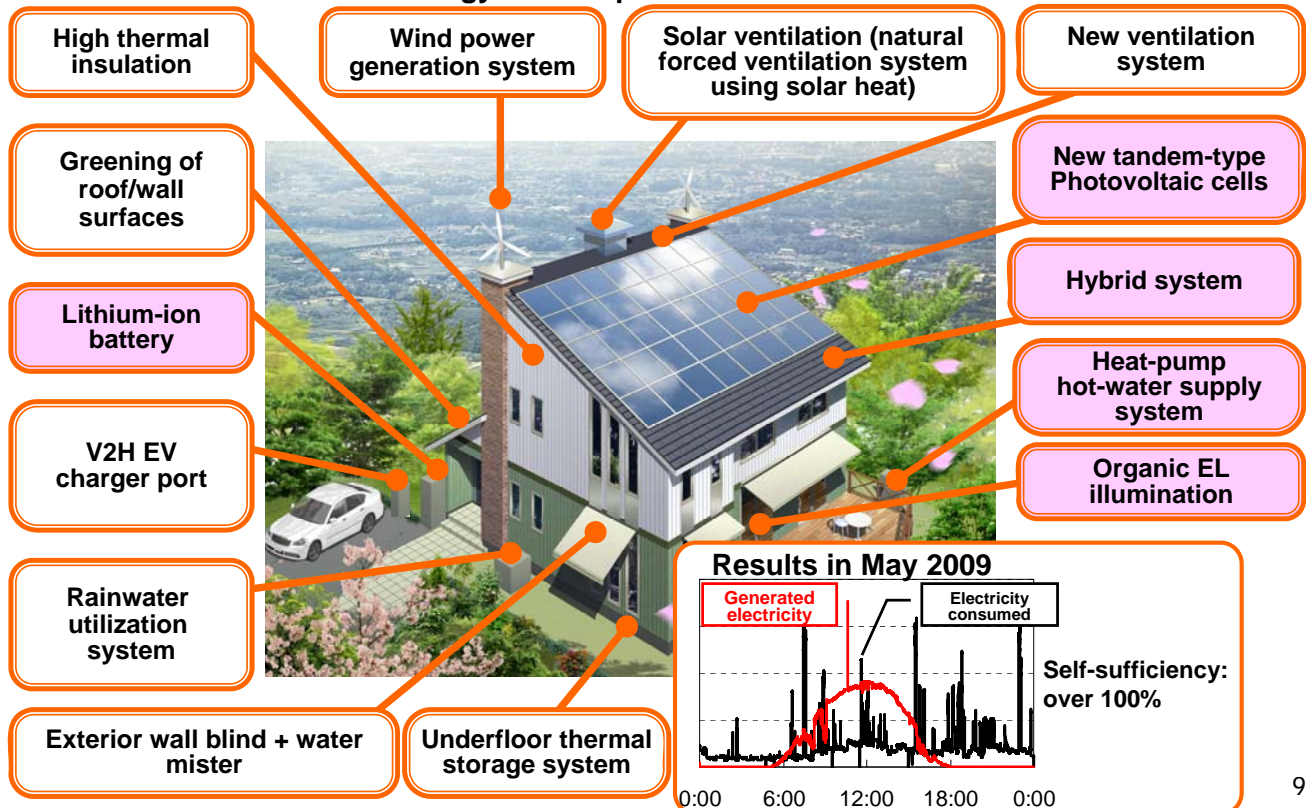
➤ Mutual flexibility between each Local Network



Introduction of Eco Sky House

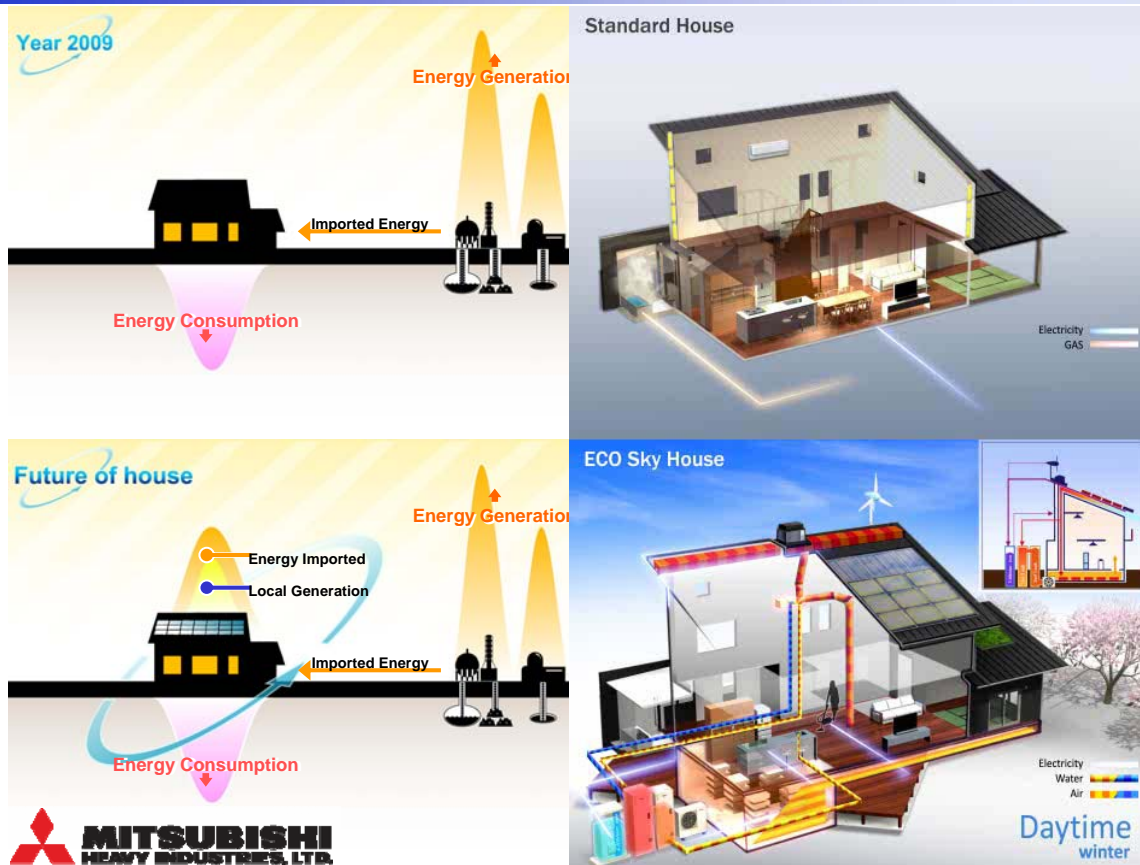
Energy conservation technologies come together to enable a major reduction in household energy consumption.

Key technology



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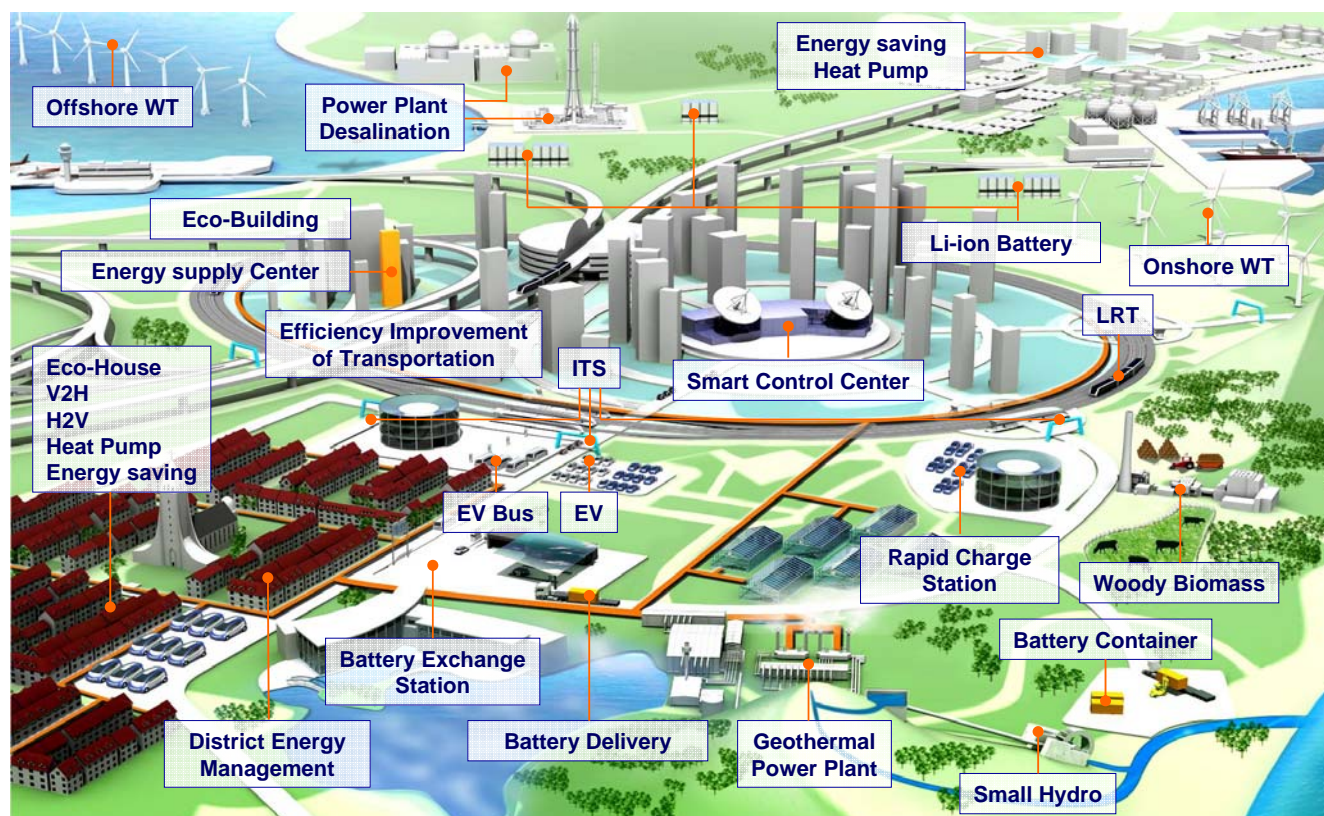
Energy Flow of Eco Sky House



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Smart Community

➤ Indispensable for realizing Low Carbon Society to construct innovative electric network.



Our Technologies, Your Tomorrow

