

# Smart City Infrastructure Development



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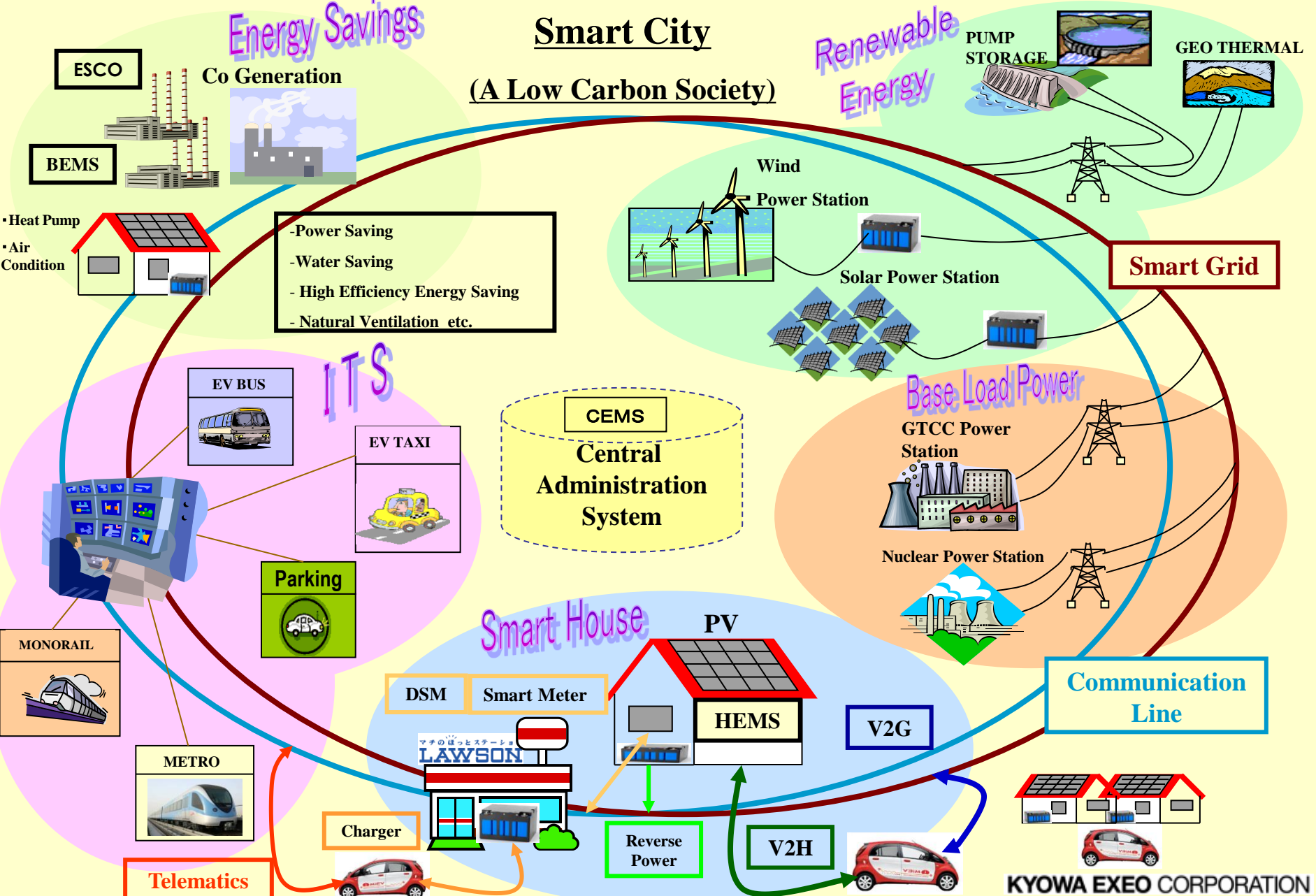
COO, Global Business Operations

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# Smart City (A Low Carbon Society)

Energy Savings

Renewable Energy



## Abbreviation

BEMS: Building and Energy Management System - System to diminish consumption of energy through control of the equipments in the buildings for best efficiency

CEMS: Community ” “ “ - EMS for total community

HEMS: House “ “ “ - EMS for home

DSM: Demand Side Management - Method to control energy consumption from demand side

ESCO: Energy Service Company - Firm to design, supply equipment, operate etc, the energy saving model

GTCC: Gas Turbine Combined Cycle - High efficiency power generation system derived from the combination of Gas Turbine (Brayton cycle) and Steam Turbine (Rankine cycle) generation

ITS: Intelligent Transport System - Sophisticated use of transportation system using advance IT technologies

PV: Photo Voltaic (Cell) - Solar battery

V2G: Vehicle to Grid - Supply of power from EV to grid

V2H: Vehicle to House – Supply of power from EV to house

# P Consumption

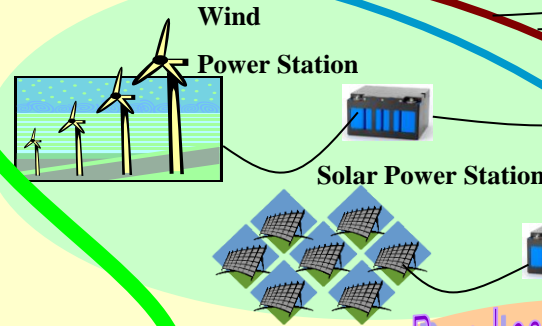
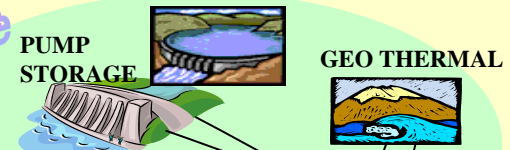
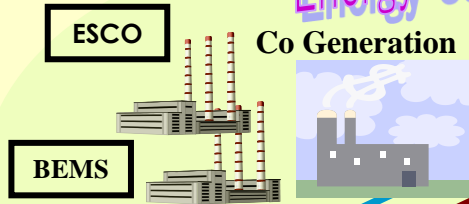
# P Production

## Smart City

(A Low Carbon Society)

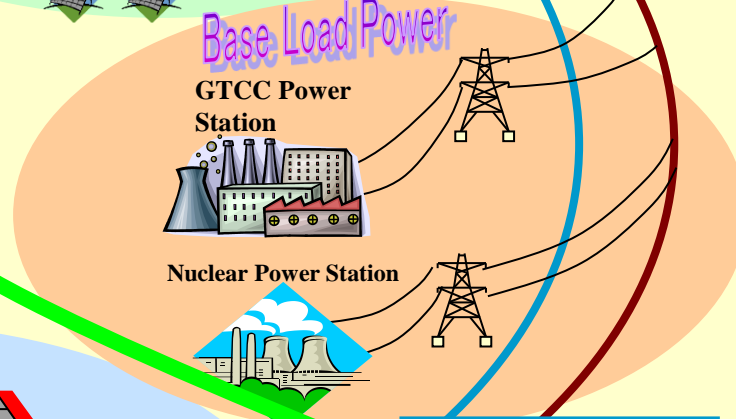
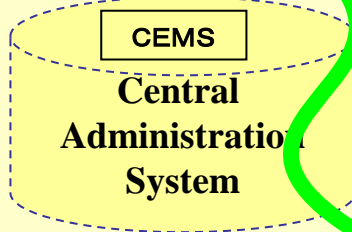
Energy Savings

Renewable Energy

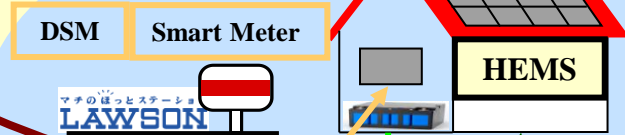


Smart Grid

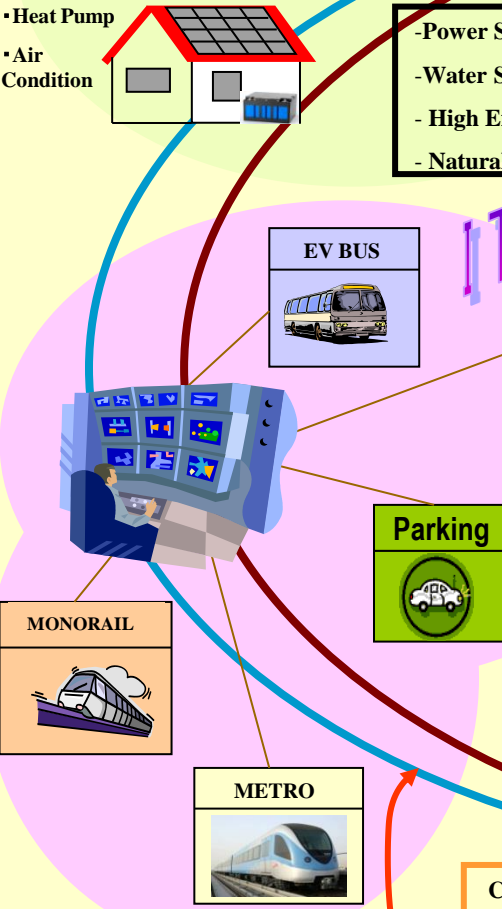
- Power Saving
- Water Saving
- High Efficiency Energy Saving
- Natural Ventilation etc.



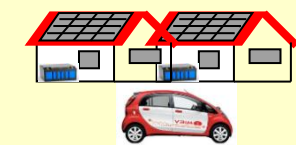
Smart House



Communication Line

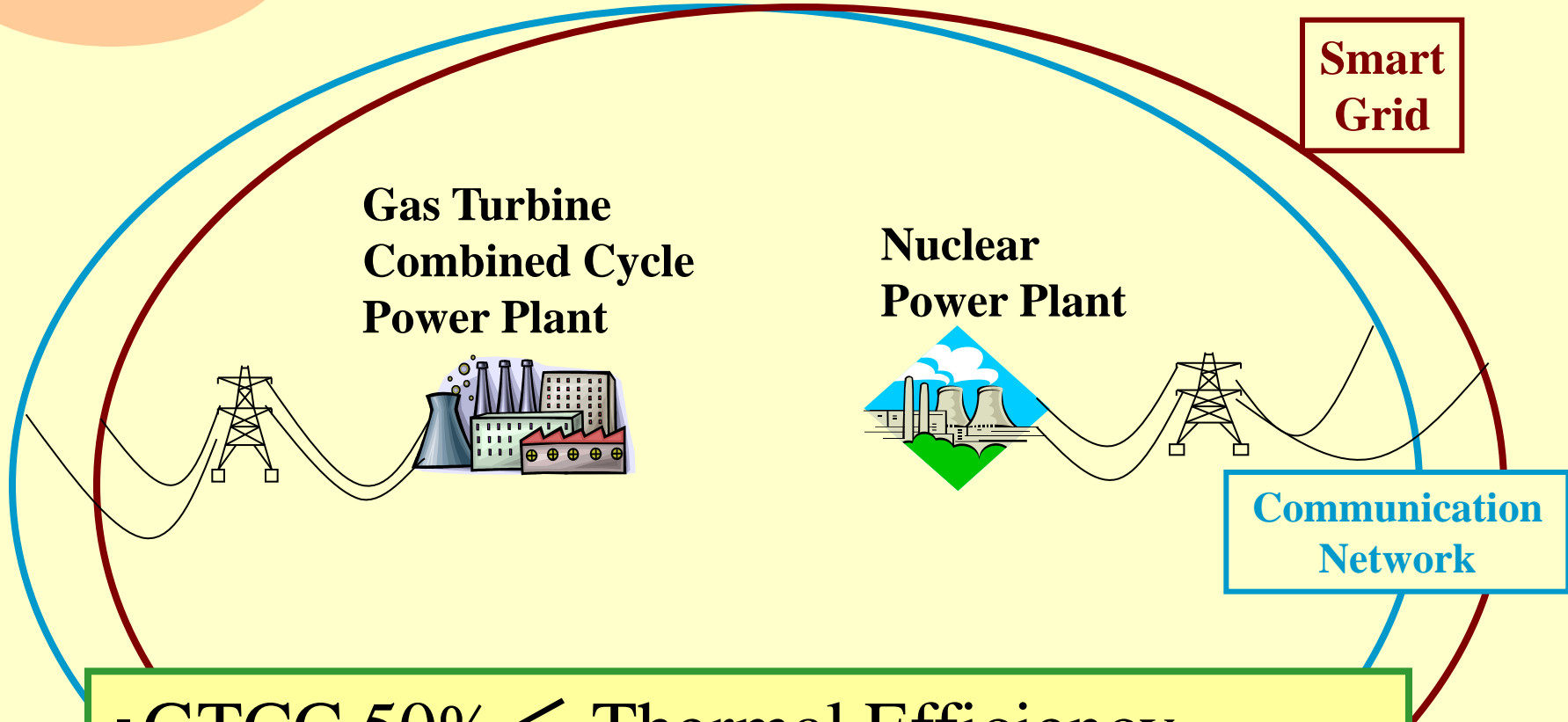


Telematics



Base Load Power

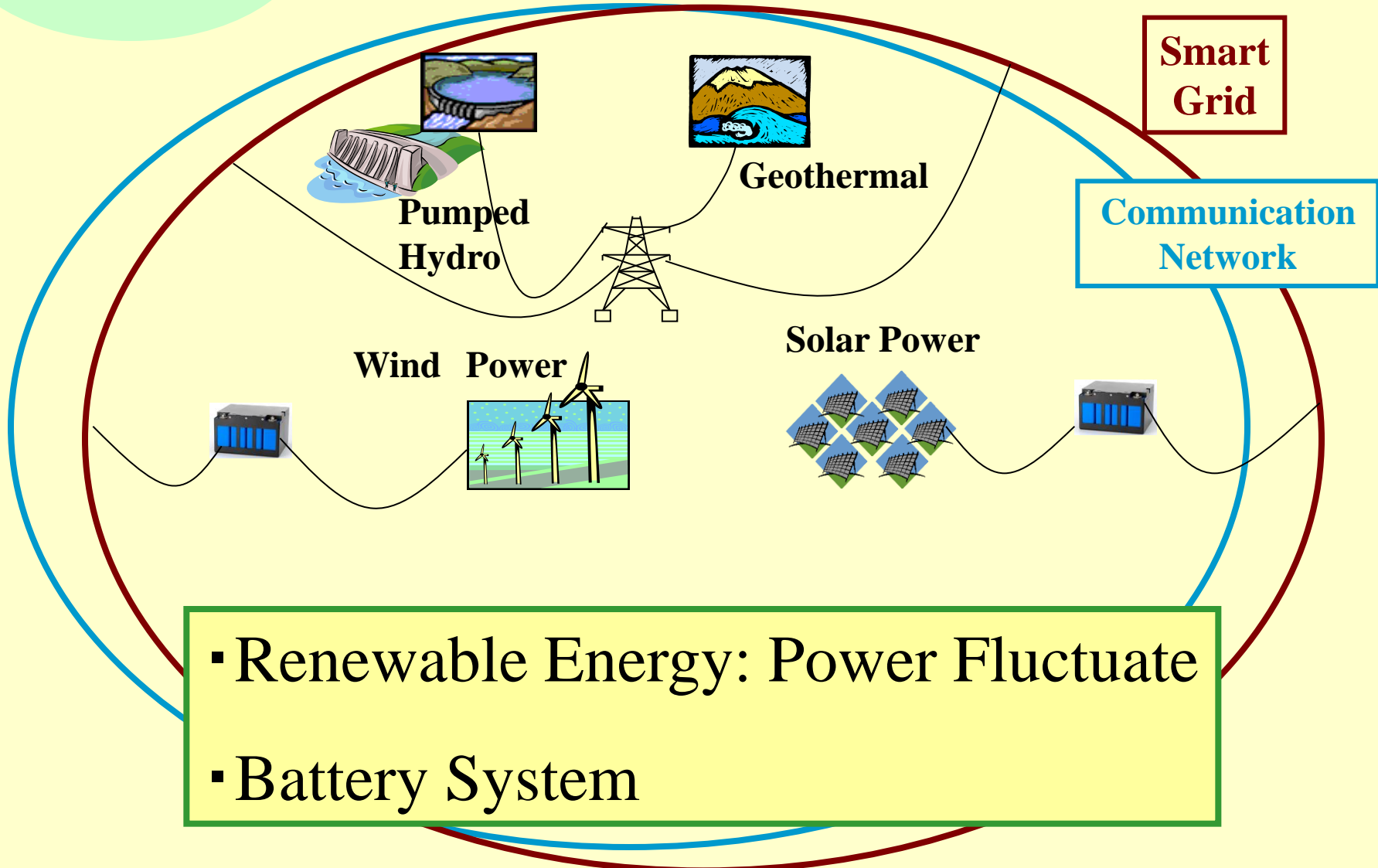
## (A Low Carbon Society)



- GTCC 50% < Thermal Efficiency
- Nuclear Power Plant <25g/KWhr CO2

Renewable  
Energy

## (A Low Carbon Society)



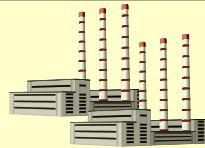
Energy Savings

## (A Low Carbon Society)

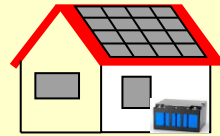
Communication Network

Co-generation

ESCO



BEMS



- Heat Pump
- Air Circulation

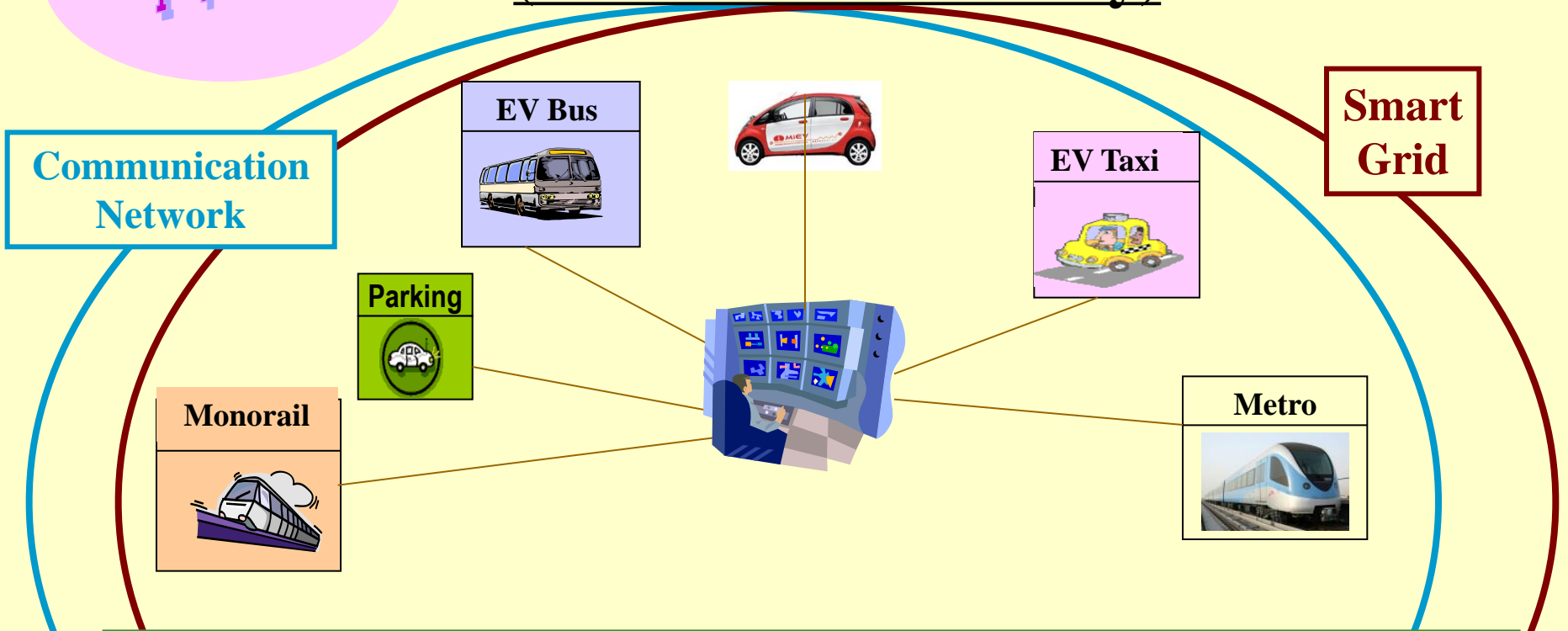
- Save energy
- Save Water
- High efficiency use of Energy
- Natural circulation Air Conditioner etc.

Smart Grid

- Co-Generation System = Power & Heat
- BEMS, HEMS, & CEMS

ITS

## (A Low Carbon Society)

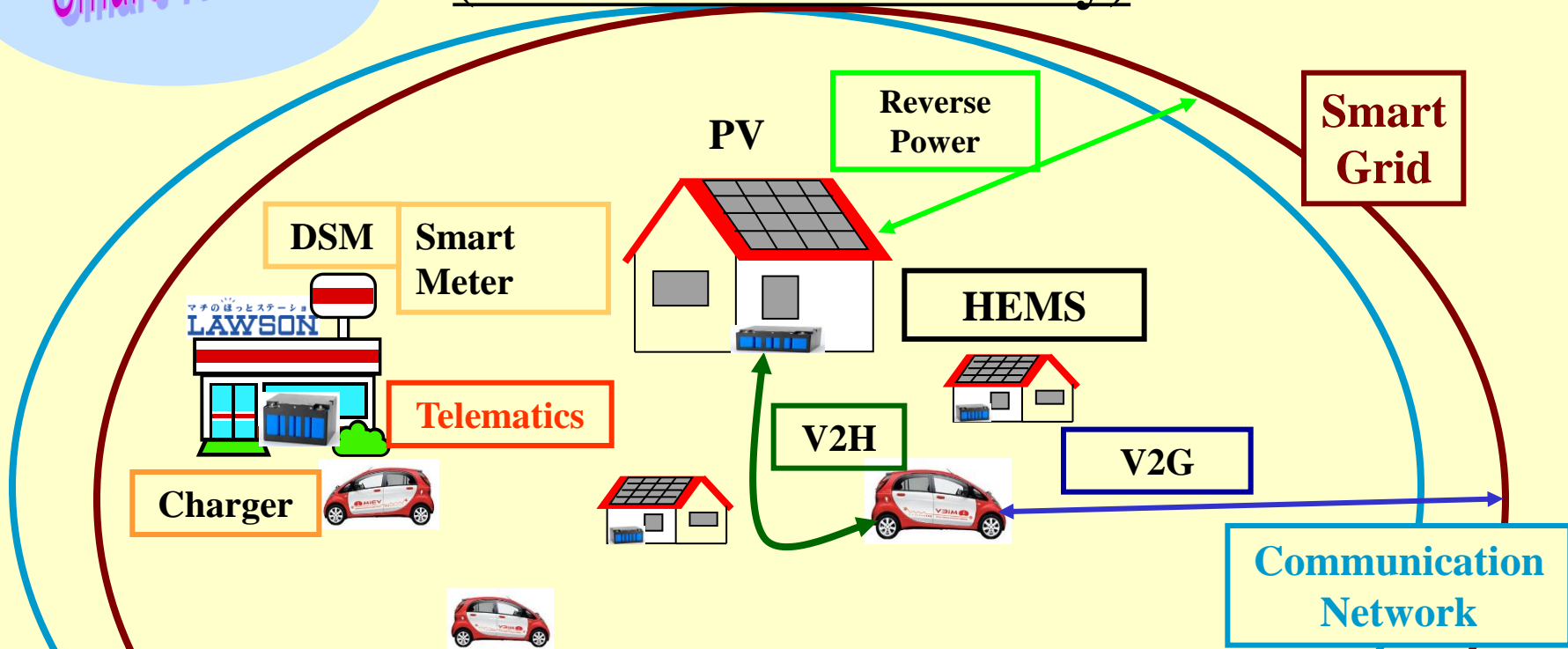


- EV = Probe
- Combination of ITS: Park & Ride system, Road Pricing system, Pedestrian Protection system etc.
- Attribute Data from Smart House and ITS



Smart House

## (A Low Carbon Society)



- EV = Moving Battery
- Smart Meter
- Car Telematics

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