

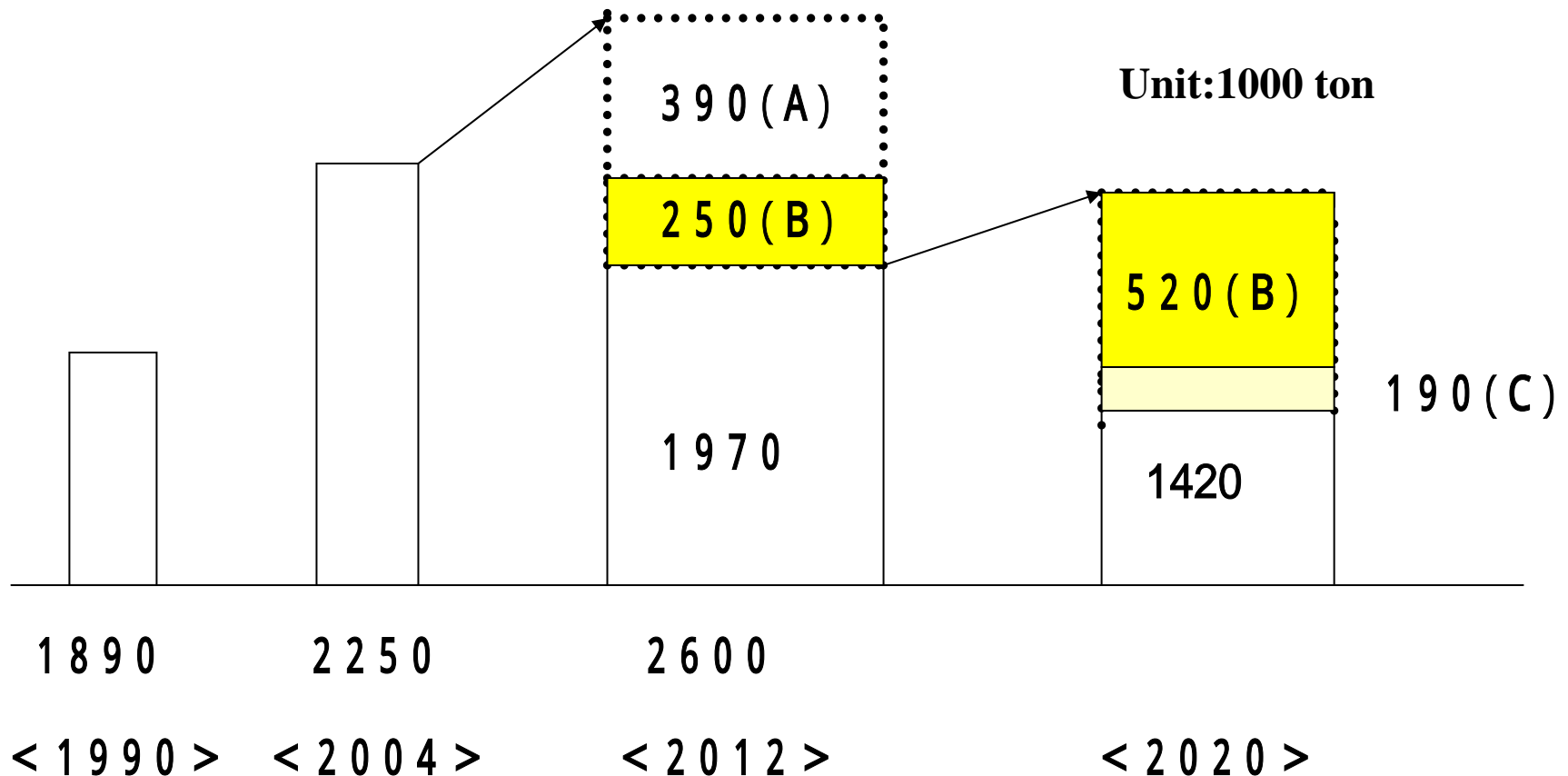


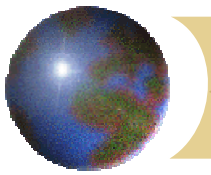
Carbon-emission and emission-cut measures in CHIYODA-ward

A: emission-cut by increased operation of nuclear powers

B: emission-cut by reinforcement of EE standard for buildings&facilities

C: emission-cut by RE ,area-wide energy system ,off-set and other measures





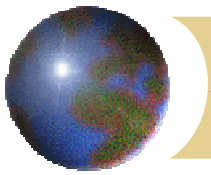
Area-wide low carbon policy & action program (1)

<purpose>

- 1. Low carbon target can not be achieved by only single measure of EE for individual buildings.**
- 2. Area-wide cooperative action is expected to work effectively in order to make the most of renewable energy source.**

<Scheme>

- 1. Following areas are designated as “Low carbon action area” under the ordinance of CHIYODA ward.**
 - * urban regeneration area designated by law**
 - * individual development project area**
 - * existing DHC service area**
 - * AEMS model area**
- 2. Setting up “Area council” composed of area stakeholders, resource persons and CHIYODA ward.**



Area-wide low carbon policy and action plan (2)

3. Sturdy and consultation

- * Sturdy on feasibility of the use of RE focusing on waste-heat and water-heat (river,sewerage,underground),biomass(waste,wood).**
- *Sturdy on “off-set projects” if necessary.
(domestic CDM is expected to be in practice)**

4.Mapping out “Area-wide low carbon policy and action program” covering short, medium and long term.

- * Development plan of area-wide infrastructure for low carbon energy**
- * Implementation plan of individual RE projects**
- * Implementation plan of off-set projects**
- * Time scheduling and cost-sharing plan**

5.Sign for agreement, Setting in “planning documents”.

- *planning power could be effectively utilized**

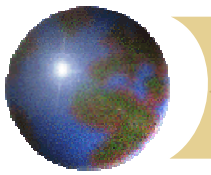
6.Setting up “Low carbon fund” contributed by members of area council

- *Fund money goes to the implementation of “action program”**



Role of City Planning toward Low-carbon Society

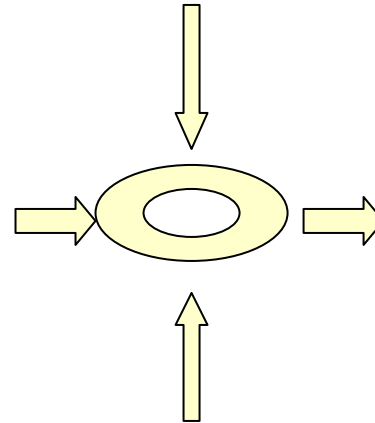
- 1. It's imperative to take more effective measures for the carbon reduction in the domestic sector and business & commercial sector.**
- 2. As a first step,
Reinforcement of Energy Efficiency (EE) for buildings and facilities.**
 - * Level-up of the standard of EE**
 - *Strengthening of building regulation (2000m² → 300~500m²)**
- 3. For meeting post-Kyoto target(medium/long term target),
As a next step, “Area-wide carbon-cut measures” are indispensable.**
- 4. Area-wide measures could be smoothly implemented by utilizing
“opportunity&site”of City planning and urban development project.**



Self-managed Corporate Action Program by business sector

Measures to building&facilities

- *EE building
- *EE facilities,electrical appliances
- *Energy-management system
<BEMS,HEMS>

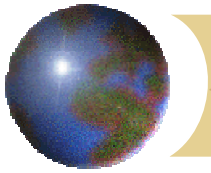


Regulative measures
(volume control)

Economic measures
(emission-trade, tax)

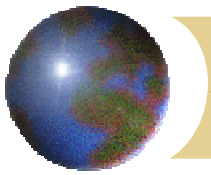
Self-managed Area Action Program(cooperative program in Action Area)

- *Improvement of EE for existing DHC systems
<plant renewal, system-networking>
- *Deployment of DHC systems to new development areas.
- *Development of area-wide infrastructure for delivering Renewable Energy
<waste-heat of incinerator, water-heat of sewerage,river,underground>
- *Self-planned Carbon-offset
<Development of off-site RE>
<Implementation of Low-carbon development in other areas>
< Support of Low-carbon projects under “Domestic CDM scheme”>



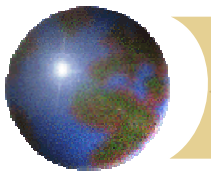
Making the most of planning tools & consensus-building procedures in planning process

- 1. Unified policy & action program of City planning with Climate Change**
- 2. Grand design of future urban pattern & land use, urban regeneration, new urban development and transportation system
—————> incorporation of low-carbon program into planning documents**
- 3. Area-wide planning and Area-wide urban development(or renewal) project.
—————>consensus- building to “Zero,Low-carbon development”**
- 4. Multi-functioning of roads,parking-lots,parks&open spaces,sewerage as “Energy Infrastructure”**



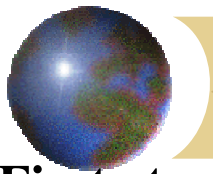
Pilot Projects in Large Cities

- 1. Formulation of “Low-carbon program” in “Urban Regeneration Area” designated by Urban Regeneration Promotion Law.**
- 2. Implementation of Low-carbon projects in Regeneration Area.**
 - *Development of Thermal Grid by RE(waste heat, water heat)**
 - *Development of Thermal-network connecting existing DHCs**
 - *Development of Sustainable transportation system**
- 3. Incorporation of “Thermal micro- grid” by biomass and solar- system**
 - * New development projects in suburban area**
 - *compact-town developments around railway stations**
 - * Housing-renewal project areas**
 - * Shopping-street areas**



Pilot Project in Local Cities and Towns

- 1. Formulation and Implementation of “Low-carbon cluster development” toward “Energy-sustainable compact-city”**
- 2. Energy system in low-carbon cluster development:**
 - *wood pellet boiler and solar thermal system**
 - *wood pellet (chip) fired cogeneration system**
- 3. Cluster-development project sites:**
 - *Urban regeneration projects in the city center where have been facing population decrease and de-urbanization.**
 - *Surrounding area of public facilities where could function as “Cluster(community) energy center”**
 - *Mixed-use development based on block-reconfiguration**
 - *Supported by “Domestic CDM”(Investment from large-city as off-set)**



What should be done

First-step:

- * **Formulation of model planning system**
<Master plan, Area plan, Infrastructure plan>
- * **Development of “Zero-,Low-carbon Model Projects**
<new dev. project, renewal project>
<100t saving-model, 500t model, 1000t model>
- * **Study on Low-carbon energy business & investment**
<cost-effect, end-user’s merits>

Second-step:

- * **Formulation of PPS**
- * **Formulation of guidebook on action program for municipalities**
- * **Domestic CDM for the promotion of Low carbon projects**

Third-step:

- * **Diffusion& Education**
<symposium, workshop, seminar>

Forth-step:

- * **Implementation of Low carbon planning in municipalities**
- * **Implementation of Zero-,Low-carbon projects in urban development**