



RE-island conference - 10 years status

Energy Democracy

~ The Scandinavian co-op model in action in Japan

October 4-5, 2007

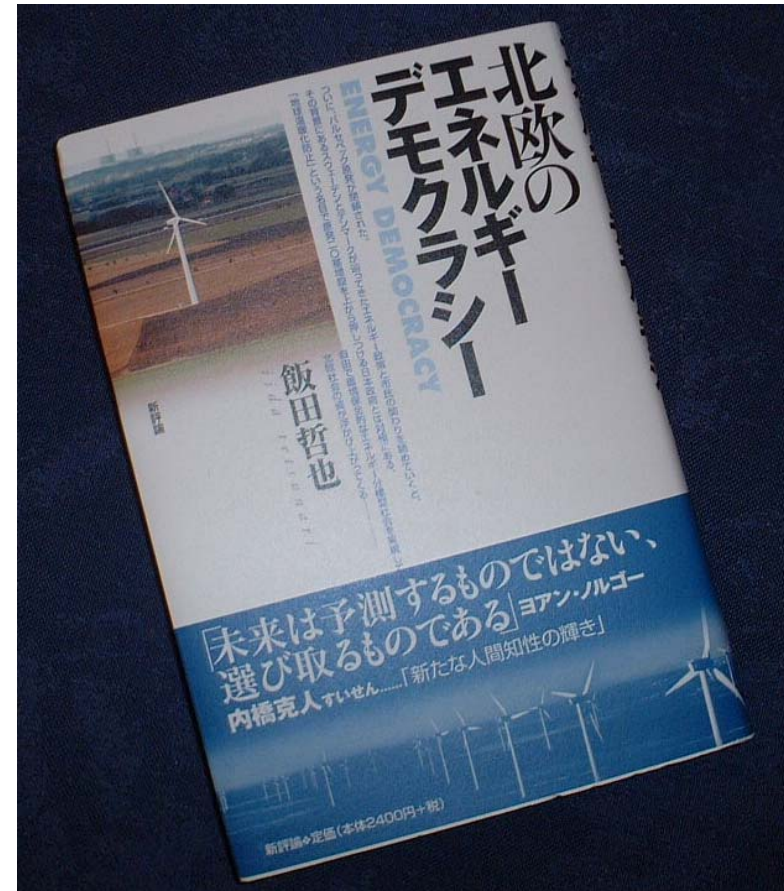
Tetsunari IIDA

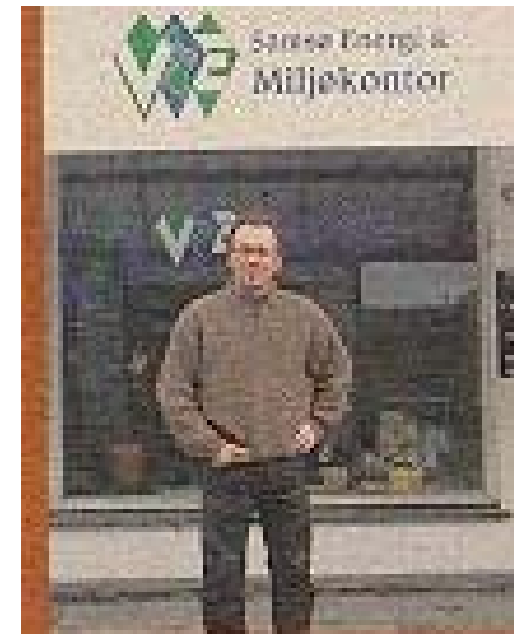
Institute for Sustainable Energy Policies (Tokyo, Japan)

tetsu@isep.or.jp

7 years since Samsø was introduced for Japan

- Comparative energy politics history in Denmark & Sweden
 - Nuclear debate and the role of peoples' movement
 - Energy policy histories with focusing on RE & EE
- Recent energy initiative from local and grassroots
 - Wind cooperative in Denmark
 - “Fossil free” Vaxjo in Sweden
 - Renewable energy island, Samsø and Gotland
 - (Voluntary) green energy emergence in Sweden
- Interaction and evolution along this book
 - Scandinavia and Japan, Korea
 - “in the book” and “real world”
 - ISEP activities and history





Why “energy democracy”

- Confronting 2 major energy difficulties
 - climate change and peak oil issues
- Energy is old and new political arena
 - Old political arena
 - supply-side energy security & oil politics, economic growth, national monopoly v.s. industry interest
 - New political arena
 - Demand-side social security, climate change & risk sharing, public participation & community choice
- Modern society is moving more & more “politicizing”
 - Energy & environment is typical agenda from “paternalism” (the government and the experts decide everything) to “democracy”
- Value, vision and policies by the government much differ from those of public and local communities (*Cognitive praxis*)
 - Need to strengthen community approach and realization to show
- Most (every?) good social innovations come from the local / grassroots initiatives

Political attitude for energy : the government and local initiative

Leading a process of green knowledge production in 3 dimensions
(Analytical framework: *“Cognitive praxis”* (Jamison, A. 1992, 2001))

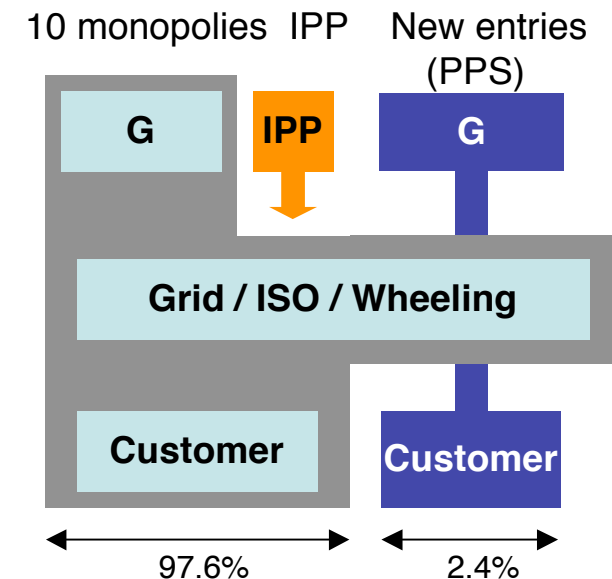
Dimensions	National government	Local initiative
	<ul style="list-style-type: none"> -METI energy policy -Nuclear “community” 	<ul style="list-style-type: none"> -Tokyo initiative -Wind cooperative and renewable energy community -Island network
Cosmological dimension	<ul style="list-style-type: none"> Technology push Nationalism Energy for economy 	<ul style="list-style-type: none"> Social pull Global citizen Energy for society
Technological dimension	<ul style="list-style-type: none"> Large central energy Governmental R&D Nuclear 	<ul style="list-style-type: none"> Small distributed energy Social innovation Renewable and efficiency
Organizational dimension	<ul style="list-style-type: none"> Top-down view Bureaucratic manner Controlling society 	<ul style="list-style-type: none"> Networking and integrating resources and actors Democratic and flexible Social decision

Snapshot of energy and climate policy landscape in Japan

- Energy security and the National Energy Strategy (May 2006)
 - Because of the failure of all energy policy areas below, even energy security seems to become vulnerable
- Climate change : national target (-6%)
 - Although GHG increase by 8% ('90 =>'05) and CO2 increase by 14% ('90 =>'05), effective policy measures such as carbon tax and cap & trade are far away from political agreement
- Renewable energy : national target (1.3% by 2010, 1.63% by 2014)
 - Political will and initiative is very much poor , even negative, for renewable energy although win-win consequences could be expected
- Nuclear energy : more than 30-40% share, reprocessing and Pu use
 - Nuclear energy is politically too much expected although there are various risks both in safety and economical aspect, such as earthquake proof etc.
- Electricity market restructuring, keep monopoly or market fundamentalism ?
 - Energy market restructuring in Japan started late 1990s. The conclusion so far was to keep de-facto regional and functional monopoly for electricity supply market

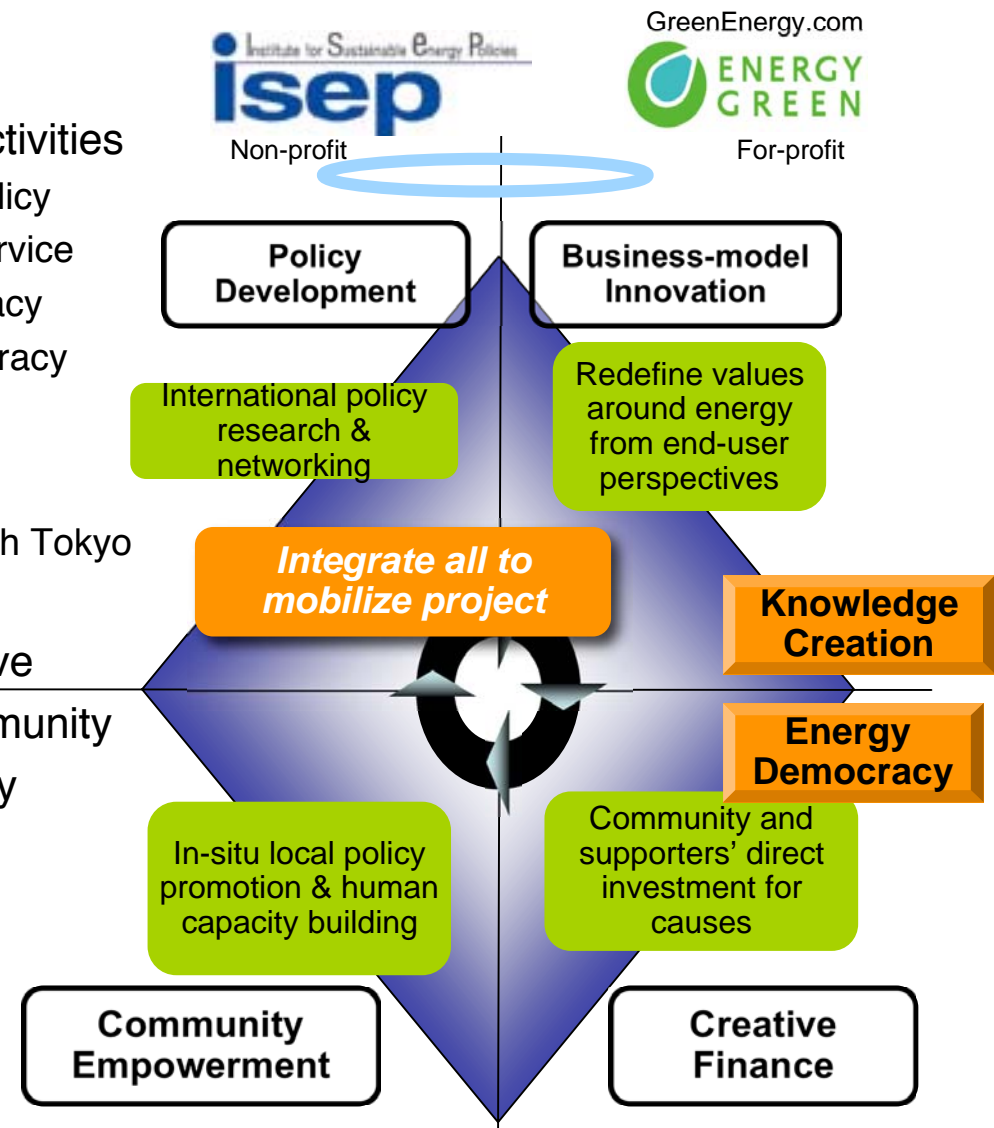
Political landscape of Japan's energy policy

- Regional & de-facto functional monopoly
 - 10 major electricity suppliers cover 10 regions separately
 - Market monopoly; 97.6%
 - Grid monopoly and ruling by themselves
 - Political monopoly;
 - All electricity suppliers are the most “giant” companies in each region, consequently, the most influential political actors both national and local governments
- Political structure and notion
 - Bureaucratic democracy
 - METI (the Ministry of Economy Trade & Industry) control whole process of energy policy
 - Relying its political power on 10 major electricity suppliers through regulation
 - Parliamentary political structure
 - LDP (ruling party) is closely harmonized with by 10 major electricity suppliers directly and indirectly
 - Democrats (largest opposition party) is critically influenced by industry labor union

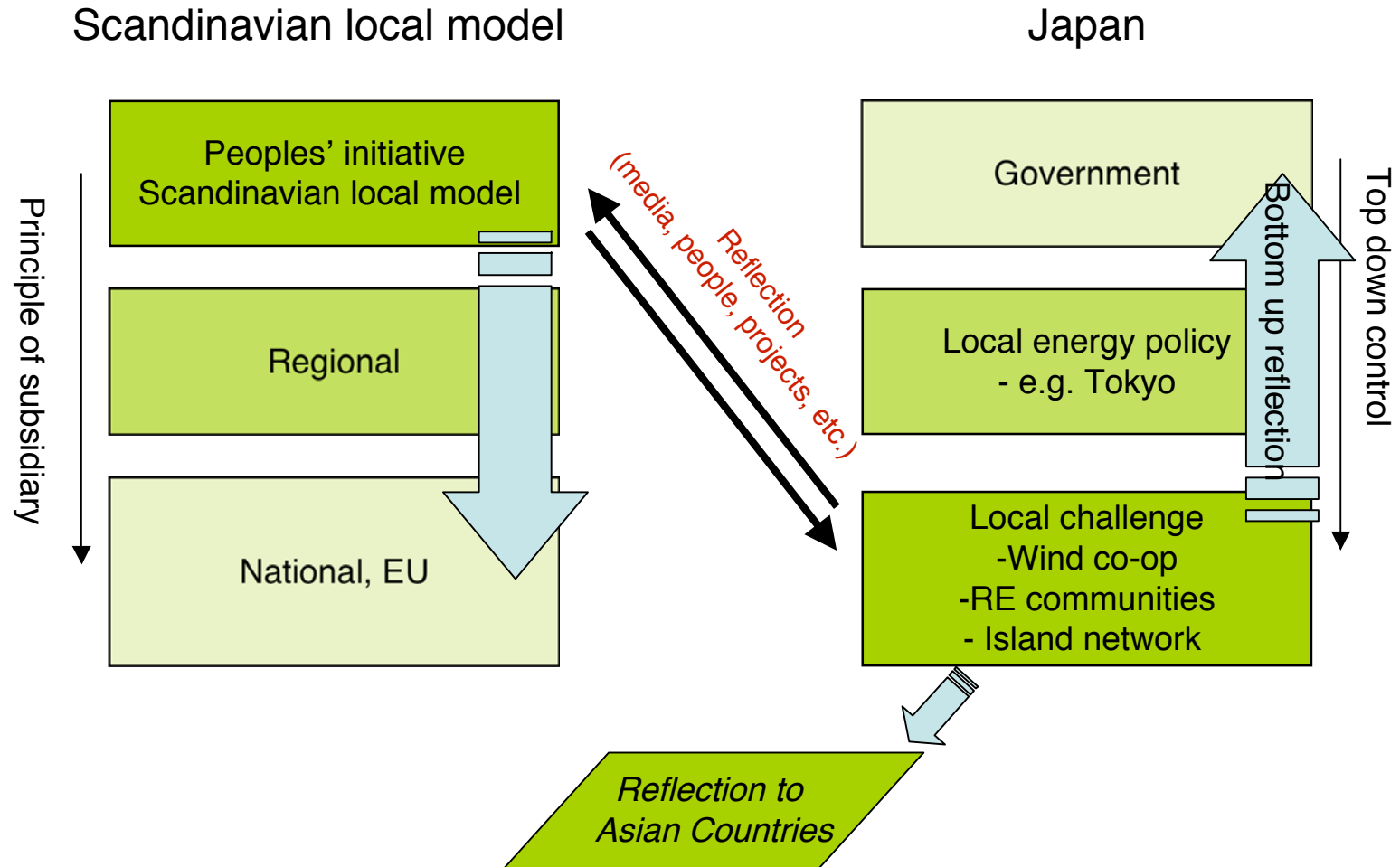


ISEP history and activities

- Founded 2000
- Policy and its realization
 - Integrating 4 domains activities
 - Sustainable energy policy
 - Sustainable energy service
 - Energy politic democracy
 - Energy finance democracy
- The result so far
 - RE policy innovation
 - Close collaboration with Tokyo
 - Green power scheme
 - Wind cooperative initiative
 - Renewable energy community
 - SEFI (sustainable energy finance initiative) Japan



International reflection, the case in Japan



Tokyo Renewable Energy Strategy (2006)

Strategic collaboration of Tokyo and ISEP with common value / vision / attitude and different role



Tokyo's target = "20% RE by 2020"

- "Principle of subsidiary" of energy
- Exergy and demand-side strategy
- Demand-pull policy

Strategic collaboration

- Common value / vision / attitude
 - Leading "sustainable energy society"
 - Local initiative for policy innovation
 - Normative but pragmatic
- Different role
 - Local government and independent NPO
 - Secretariats and official committee member

Importing “Environmental & Energy Agency”

High-level coordinators to include various stakeholders, to promote local acceptance, to innovate and arrange local renewable projects so as to be most valuable for all local stakeholders

RES & EES Local project

Local ownership and
Public participation

For citizens

Good investment

For Citizens

Policy implimentation
& activity base

For NPO/CBO



Climate change

For global citizens

Energy Education

*For local people and for local
government*

For local government

New public investment

For local economy

Local business &
employment

International reflections : wind cooperative in Japan

Danish wind cooperative was a good model to learn for energy movement in Japan, introduce and “import in”.

◆Recent development of energy movement in Japan

~ 1992 : anti-nuclear movement days

1992 - 97 : **dialog** and **alternative energy policy** e.g. **DSM**

inspired by Rio-summit and California model

1995 - 01 : **collaboration** and **green power**

inspired by the Third Way and Swedish model

1999 - 03 : **renewable energy policy** (FIT vs Quota RPS)

inspired by German success

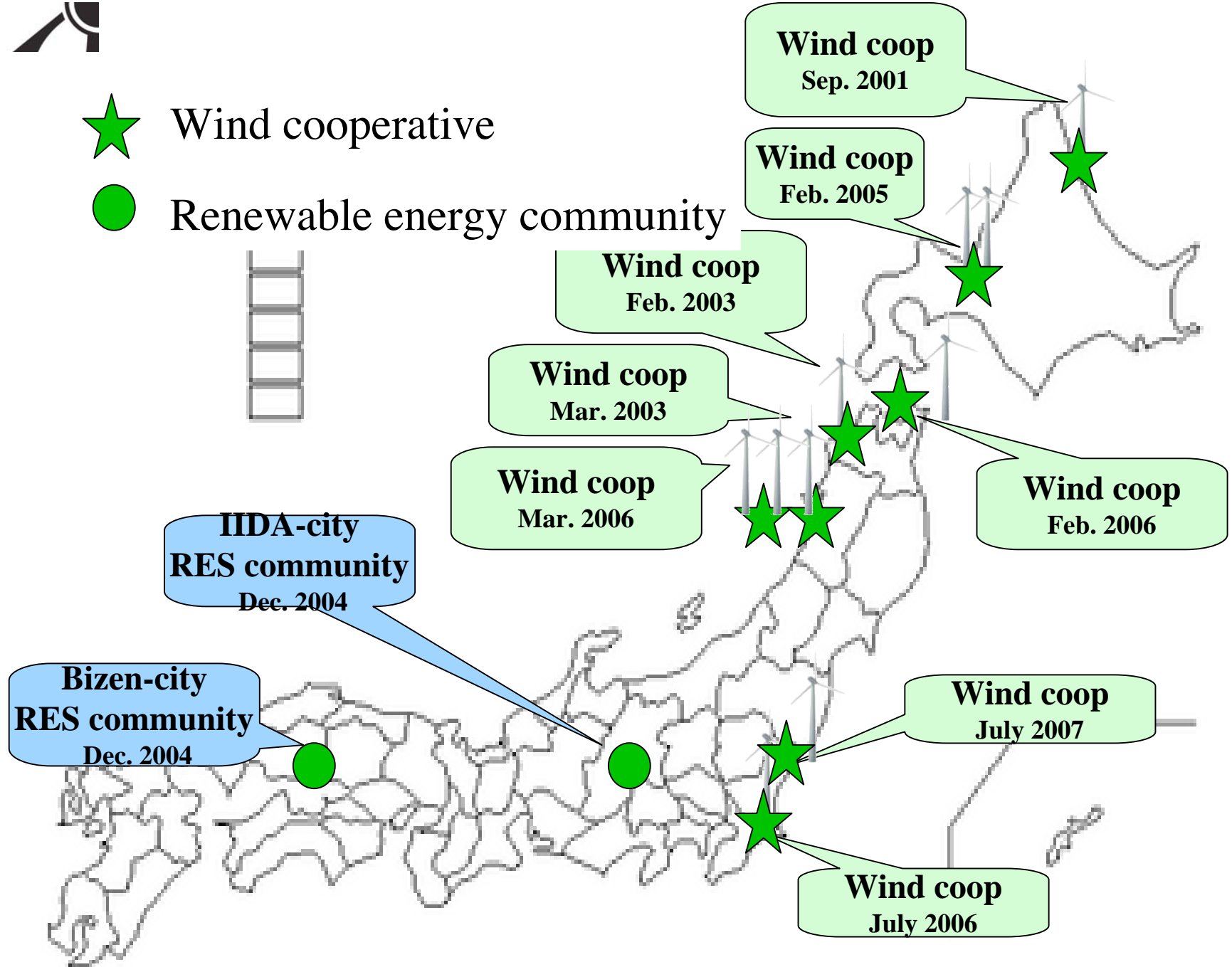
2001 - 07 : **wind cooperative** and **renewable communities**

inspired by Danish model





- ★ Wind cooperative
- Renewable energy community



Wind cooperative merit for various stakeholders

For local community

- Direct profit share from renewable energy
- Good opportunities for learning renewable energy
- Vitalization and evolution of local communities etc.

For public investors

- Sense of “ownership”
- Chance of social contribution
- Fare return
- “Energy gift” for future generations etc.

For local energy business

- New financial path direct from people
- Possible tax merit (e.g. path through taxation) etc.



First wind cooperative in Japan
“Hamakaze” in Hokkaido

Renewable energy community project in Iida City, Nagano

Inspired from Danish approach of “environmental & energy agency”, local energy company was set up with local NPO supported by local government and ISEP



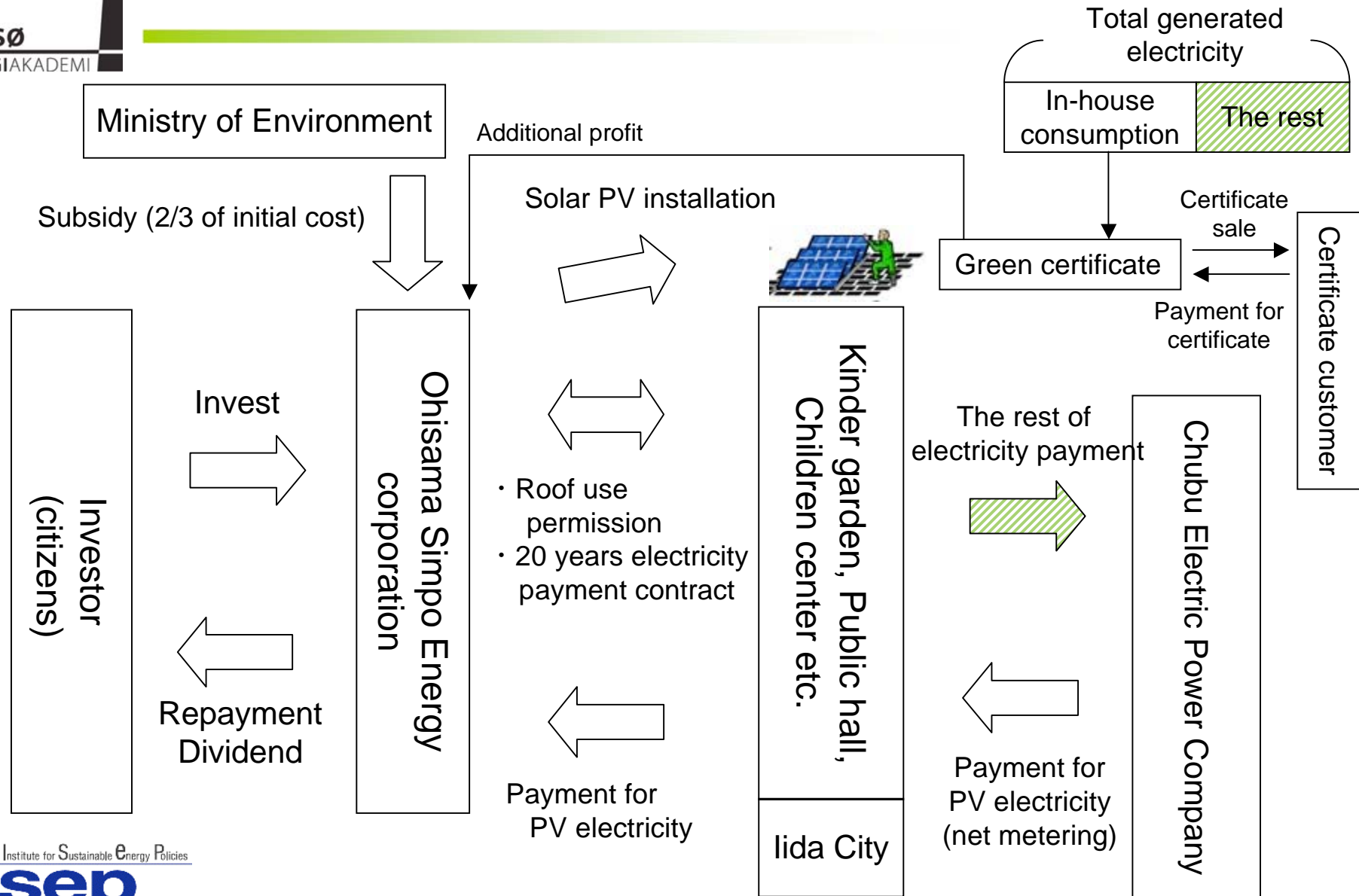
Community solar PV & Efficiency project

- Community energy with citizen's invest
 - sharing cost (risk) & benefit with citizen
- Public & Private Partnership
 - closer communication, commitment and support
- Realize real sustainable development
 - environmentally, economically and socially

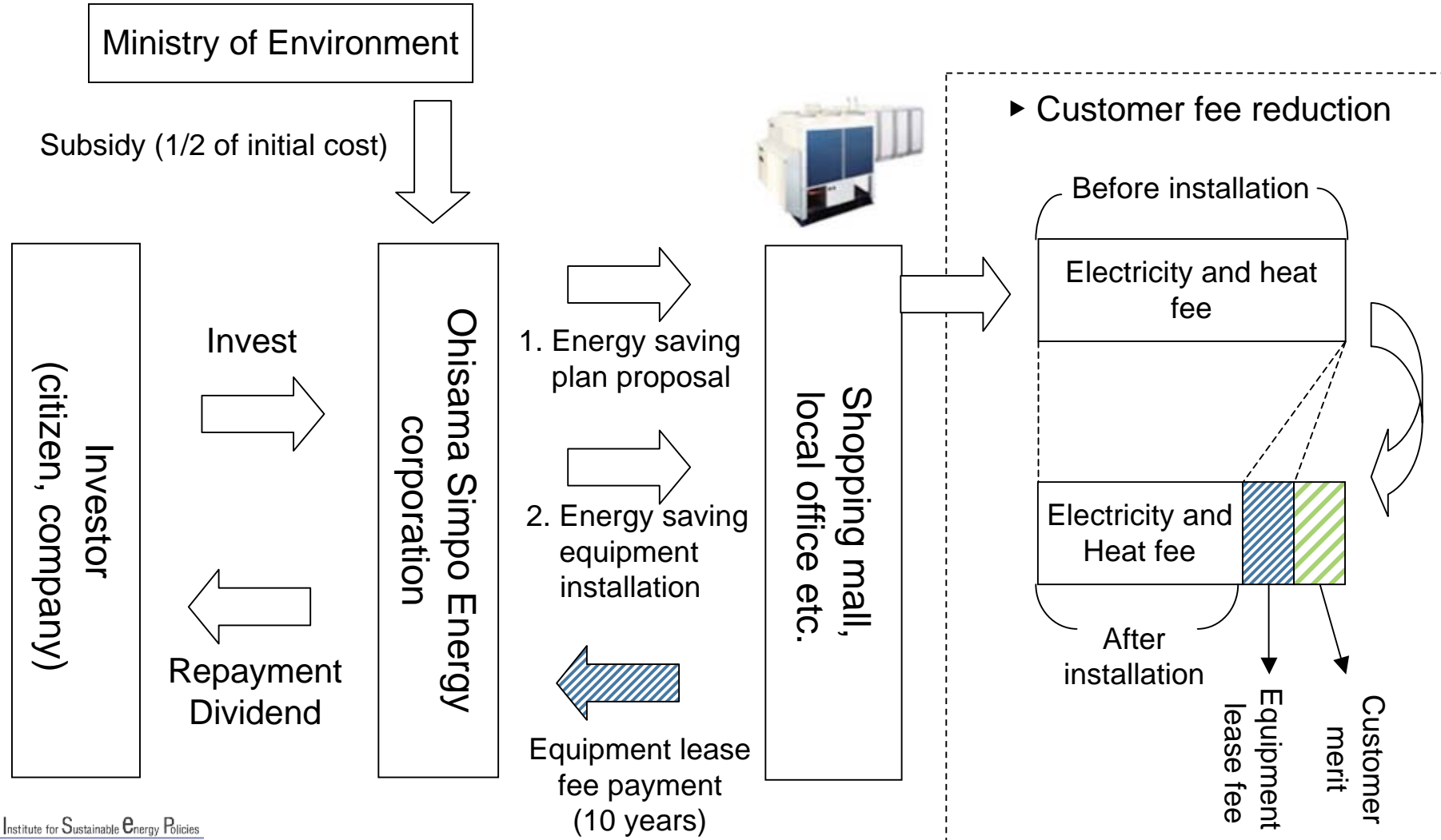


Adventurous challenge, then fruitful results

Citizen funded community solar PV scheme



Citizen funded community energy saving service scheme



Renewable energy installation (Iida City)

Overcoming obstacles and fruitful results

- Obstacles at the beginning
 - low recognition and low trust for ISEP as “Outsider”
 - conflict in local politics
 - bureaucratic barriers in local gov.
 - energy saving less regarded
 - premature experience & technical skill
- Outcome so far
 - 38 sites, total 208kW capacity PV
 - closer relationship among actors
 - public awareness
 - environmental education
 - reputation as “Succeeded Model”
 - shift to 2nd stage, larger project in wider area



Challenge for “Renewable energy island” in Japan

1. Yaku Island and Honda Hydrogen FC testing (~ 2004 ?)
 - There has been no recent updating since 2004
2. Bio-island network initiative (2006 ~)
 - Small step by NGO, still early stage



Summing up

- Scandinavian energy history tells us that most of social innovations have been rooted from peoples' and/or local initiative, named as “**energy democracy**”
- International reflection of Scandinavian co-op model has **encouraged** and **inspired** local communities and peoples in Japan as well as internationally, and “**make it happen**” in each society
- Among them, “**the renewable energy island**” is very **imaginative** key word, then, Samsø is well-known in Japan as well as internationally as good show-case that “**the vision becomes reality**”