Political lessons from myth about Japan for RE promotion

~ Political initiative and conflict around renewable energy in Japan

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“Solar tragedy” - the case for solar hot water (SHW) market in Japan

source: Ministry of Economy Trade and Industry, Solar System Development Association
“Solar tragedy” because of …

- The reasons are generally explained;
  - Oil price down,
  - Weak competitiveness of SHW industries,
  - Sales scandal by SHW made public perception worse

- The reality was due to badly designed “policy disaster”;
  - Severe competition between giant energy industries
  - Ended up the Gov’s initial subsidy and soft loan for SHW in 1990,
  - No “renewable heat policy” instead
“Wind tragedy” - Shrinking Japan’s wind power market

Wind power is shutting out from the grid

- 2000 MW applied
- 700MW application

MW
Completion
Order
Cumulative
“Wind tragedy” - Japan’s wind power market are shrinking because

• No real “market” under new RPS (quota obligation) law
  – 99.5% of the certificate “market” is covered by the 10 regional monopolies, historically harmonizing their response toward energy policy precisely through their association (FEPCO)
  – Owing to small target and slow progress, surplus of the certificate will continues at least 5 years

• Grid issues as a “good excuse” for electricity monopolies
  – Grid connection issue, such as “stability of electricity supply”, is good excuse for the monopolies to exclude “fluctuating” wind power
  – Small target and slow progress set by Japanese RPS allow the el-monopolies to set the ceiling for new renewable and bidding

• As a result, markets for wind power as well as other new renewable electricity market are shrinking
Background of “Wind tragedy” - too small RE target

- 20% by '20
- 15% by '15
- 2010 target
- 10% by '10
- 21% by '10

1997 RE ratio (mostly Hydro)

JP
EU
GE
UK
FR
Japanese RPS “market” - strongly biased energy politics

Obligation (2004): 3.56 TWh
Reported (2004): 4.91 TWh
Banking (2004): 2.06 TWh

12.2 TWh (1.35%) at 2010

Official yearly target

Defacto yearly target
Japan as the world PV top-runner … by “political accident”

Utilites’ voluntary net-metering for PV

Gov’s subsidy for roof-top PV

EEG introduced

cumulative, MW

Japan
Germany

[Graph showing the cumulative MW of PV installations in Japan and Germany from 1992 to 2003, with key events such as the introduction of EEG for renewable energy.]
… will most likely turn into “2nd solar tragedy” by policy disaster
Possibly “Solar tragedy” again because of “policy disaster” …

- **New RPS legislation in 2003**
  - Japan’s Gov. introduced RPS (political quota of RE) in 2003, while el-utilities’ voluntary program for PV was left as it is,

- **Ending up Gov’s PV subsidy in 2005**
  - Japan’s Gov. recently announced to end up the initial subsidy for PV, that is economically small but politically important, while

- **Coherent ending up PV voluntary net-metering in 2006?**
  - El-utilities (de-facto 10 regional monopolies) start to considering to give up their voluntary net-metering program for PV due because of increasing financial burden,

- **No public policy fill the gap**
  - Japan’s Gov. has no idea to improve badly designed their RPS law
Japanese RPS introduced after political conflict

- NGOs/Parliament collaboration has once opened the policy window
  - In Nov 1999, supra-partisan coalition for renewable energy has launched in the Parliament under the strong collaboration with NPO alliance, that had proposed a draft legislation based on FIT.
  - In May 2000, the Parliament Coalition proposed the draft law based on FIT, however finally METI has taken back their political power, and succeeded legislation of new RPS in 2002

- Electricity industries (10 regional monopolies): strong opposition against both FIT and RPS (quota obligation) in order to avoid any regulations and enjoy monopoly
  - Owing to their voluntary net-metering program since 1992 and their voluntary long term contract program for wind power since 1998, wind power has started rapid growth, then, they reverse their attitude

- Government (METI bureaucrats): keeping their political power on energy policy
  - Historically they have relied on the political power of electricity industry through their command & control regulation, RPS (quota obligation) fit their political culture and attitude

- Energy Politics in the Parliament: still controlled by “energy conservatism”, stick to nuclear “myth”and pork-barreling culture
  - LDP (ruling party) is controlled by the electricity monopolies, while Democrats (opposition party) is controlled by the trade union of the monopolies
On the contrary, new initiatives come up with …

- **Parliamentarians**
  - Parliamentarians who support renewables are minority but actively working on both in LDP and DP, keeping good relations with civil society

- **Local governments**
  - Some local governments are very much active to promote renewables. E.g., green power purchasing and green heat obligation by Tokyo metropolitan.

- **Community wind**
  - Direct investment scheme to wind powers by local people are enlarging their “sense of ownership” for local resources and future environment.

- **Local MFOs** (market facilitation organizations)
“Market Facilitation Organizations” (MFOs)

Integrating public/private innovative domains to promote sustainable energies

Public / not for profit

Knowledge domain

Policy innovation

Fore-front policy research & network

Universities, research institutes etc.

Private / for profit

Innovative energy service

User service oriented & user democracy

Energy industries, energy ventures, etc.

Integration

Innovative political process

Deliberative & participative process

Universities, research institutes etc.

Innovative financing

Direct community fund for local RE

Bank, securities, non-bank

Society domain
Integrating public / private tools for innovative RE promotion

MFOs for local energy service: PV scheme in IIDA-city, Nagano

Local MFO for energy (supported by local stakeholders)

1. Direct investment
   - Local public
   - Finance experts
   - Investment

2. Least cost EPC
   - PVs: 208 kW for 38 place
   - Remote monitoring
   - Policy support
   - Long term contract

3. Public building
   - Domestic use
   - Use
   - Voluntary Net-metering

4. Green power
   - Market
   - Green certificate
   - Sales

5. Green certificate
   - Green power
   - Market
   - Sales

Direct investment
Finance experts
City / Gov.
PVs: 208 kW for 38 place
Remote monitoring
Public building
Long term contract
Domestic use
Voluntary Net-metering
Concluding remark

• Political risk by negative feedback
  – Early success, such as German case, have created negative feedback to large, hostile energy industries in Japan, who have market power as well as political power for energy policies in Japan,
  – Then RE policies easily turn to be “policy risk” rather than “support” since it’s often developed by those hostile actors,

• Policy risk by political RPS
  – RPS does not effectively address the issue of external costs of conventional energy, nor does it provide cradle markets bringing new technologies to competitiveness.
  – The single certificate price does not discriminate between technologies at very different stages of industrial development, and market uncertainties of certificates discourages investments in new wind-hydro and solar technologies.

• New initiatives as positive feedback from the society
  – Political initiative at national and local level are coming up with,
  – More integrating approach at local level, such as community wind and local MFOs are under development

• Japanese lessons tell us the need for combination of strong political commitment and innovative integration for RE promotion
Sustainable energy future must be explored through deliberated democracy and better political will.