

New Japanese Energy Strategy and FIT

- National and Local Prospects and Barriers -

29th August 2012
Noriaki Yamashita & Shota Furuya

REFORM Workshop @ Salzburg



Institution for
Sustainable Energy Policies



Free University of Berlin
Environmental Policy Research Institute(FFU)



Aalborg University



おん、毎朝とまふ中—— 10月10日

東京大学 政治経済学系 教授 佐々木 隆

「エス・エス・エス」選民と意見をめぐる疑問を解く

「エス・エス・エス」は、日本最大の選挙権者である
選民の選民権（選民権）を、選挙権の権利とする。選民権は選挙権と異なり、選挙権は選挙権である。

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家の方々とともに、市民の目線で疑問点や問題点を整理、検証します

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吉岡斉（九州大学副学長）



第3回みんなのエネルギー・環境会議
「ドイツ安全なエネルギー供給のための倫理委員会」

2012年4月10日
山下 紀明



Free University of Berlin
Environmental Policy Research Center (FFU)



独立非営利活動法人
環境エネルギー政策研究所 (ISEP)



University Energy and Environment Conference

MEED

2011年7月31日 豊田中央総合大学

第1回 みんなのエネルギー環境会議

University Energy and Environment Conference

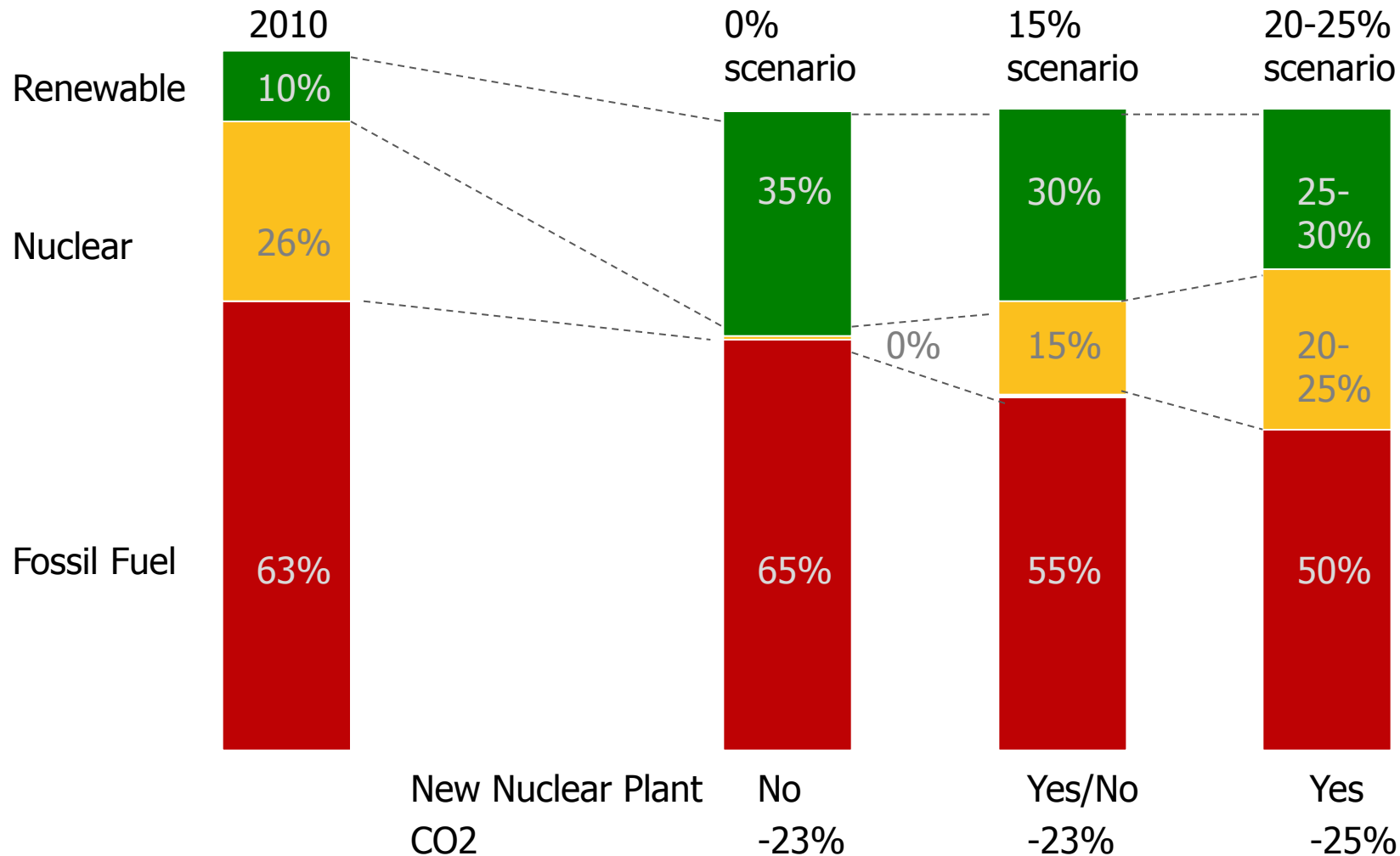
2011年7月31日 豊田中央総合大学

全体討論第二部 再生可能エネルギー



Options for Electricity Scenario in 2030

At least, RE needs to supply 25% of electricity in 2030.



Complex Framework for New Strategy

Ministerial Meeting

National Policy Council

Energy & Environment Council

Meeting on
Electricity
Demand & Supply

Ministerial meeting
on Electricity
Market & TEPCO

Committees by Ministries

3 option for New Strategy

Advisory Committee on Energy
and Natural Resources

Basic Issue Committee

Energy Conservation Committee

El. System Reformation Expert
Committee

Natural Gas Shift Committee

Atomic Energy Commission

Central Environment Council

Committee for Accident Survey
of Fukushima

Hearing for Technical Knowledge
of Fukushima Accident

Expert Meeting on El. Price
System& Management

Meeting on Natural Resources
and Fuel

Committee on FIT tariff level

METI

NPC

MoE

Basic Issue Committee

Chairperson and secretariats lead to “reasonable” strategy.






1st. Oct. 3, 2011
2nd. Oct. 26
3rd. Nov. 9
4th. Nov. 16
5th. Nov. 30
6th. Dec. 6
7th. Dec. 12
8th. Jan. 18, 2012
9th. Jan. 24
10th. Feb. 1
11th. Feb. 9
12th. Feb. 14
13th. Feb. 22
14th. Mar. 7
15th. Mar. 14
16th. Mar. 19
17th. Mar. 27
18th. Apr. 11
19th. Apr. 16
20th. Apr. 26
21th. May. 9
22th. May. 14
23th. May. 21
24th. May. 24
25th. May. 28
26th. Jun. 5
27th. Jun. 19
28th. July 5
29th. July 11
30th. July 30
31th. Aug. 23



- Point of departure:
 - Former PM's *"Phase-out from heavy dependence on nuclear"*
- Committee's Mission:
 - Providing draft plan for the new national energy strategy
- 25 committee members
 - Existing industrial leaders
 - Energy market reformers
 - Sustainability advocates etc.

Public opinion

Most people want phase-out from nuclear.

Type	Participants/ opinion	in favor of 0% scenario	
Public hearing	1,542 (applicant for speaker)	<div> <div>0 scenario</div> <div>15</div> <div>20-25</div> <div>others</div> </div>  <div>68%</div>	
Public comment	89,124	 <div>87% (78% want immediate shut- down)</div>	
Deliberative Poll	285 (discussion participants)	<div>before</div>  <div>41%</div> <div>after</div>  <div>47%</div>	
Polls by medias	1,000-2,000	<div>30-50% ex) NHK</div>  <div>34%</div>	

FIT since July 2012

Considerably high tariffs because of incentive and no cost data.



<10kW 42 yen (10yrs.)	>10kW 42 yen
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<20kW 57.75 yen	>20kW 23.1 yen
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<200kW 35.7 yen	200-1,000kW 30.45 yen	1,000-30,000kW 25.2 yen
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<15,000kW 42 yen (15yrs.)	>15,000kW 27.3 yen (15yrs.)
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methane gasifier 40.95 yen	unused wood 33.6 yen	used wood 25.2 yen	waste 17.85 yen	recycled wood 13.65 yen
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*Tariff term is usually 20 years.

**Tariffs are decided as tax-exclusive price, this chart include sales tax (5%).

Source: METI Special website <http://www.enecho.meti.go.jp/saiene/kaitori/kakaku.html> 10

FIT leads PV increase in FY 2012

2-3GW PV in FY 2012, and wind follows, others needs more time.



<10kW 143,933kW	>10kW 300,705kW
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2-3GW in FY 2012 by experts



<20kW 0kW	>20kW 122,000 kW
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some years later



<200kW 0 kW	200-1,000kW 0 kW	1,000-30,000kW 0 kW
----------------	---------------------	------------------------

some years later



<15,000kW 0 kW	>15,000kW 0 kW
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10 years later



methane gasifier 0 kW	unused wood 0 kW	used wood 0 kW	waste 0 kW	recycled wood 0 kW
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5-10 years later

Registered capacity by METI as of July 31th, 2012

Better FIT and Grid constraints

FIT could be first step, but many constraints and backlash.


1. Tariff level and term

- Transparency and appropriate revision
- Categorization of biomass plant
- Surplus electricity from PV(<10kW)

2. Grid issue

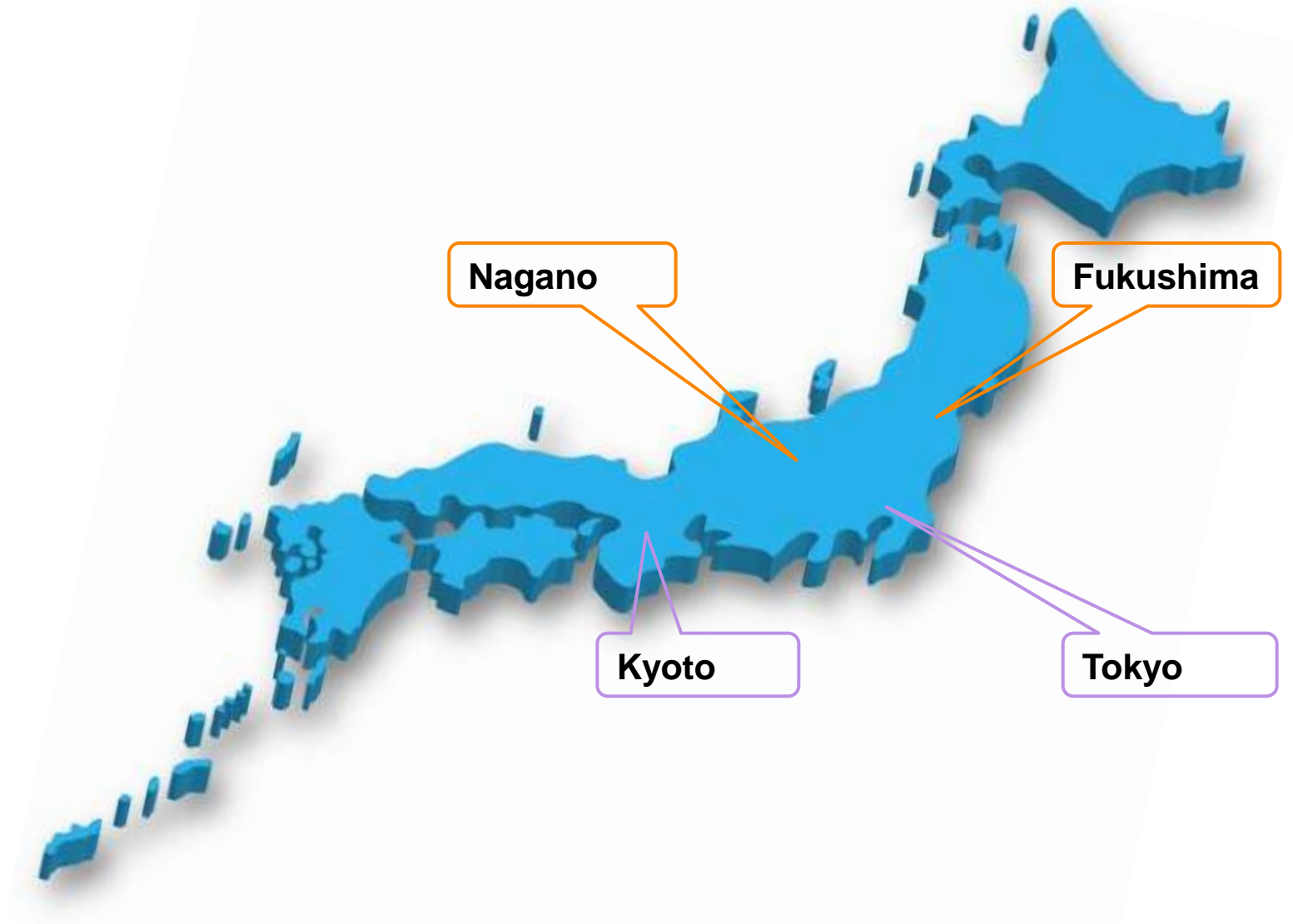
- Priority access and disclosure of information
- Grid expansion

3. Further problem

- Harmonization with existing law
 - Information service to the public
 - Social acceptance on large scale RE project
- 
- Backlash or?

New Local Targets and Policies

Some prefectures aim 100% RE regions or RE obligation.





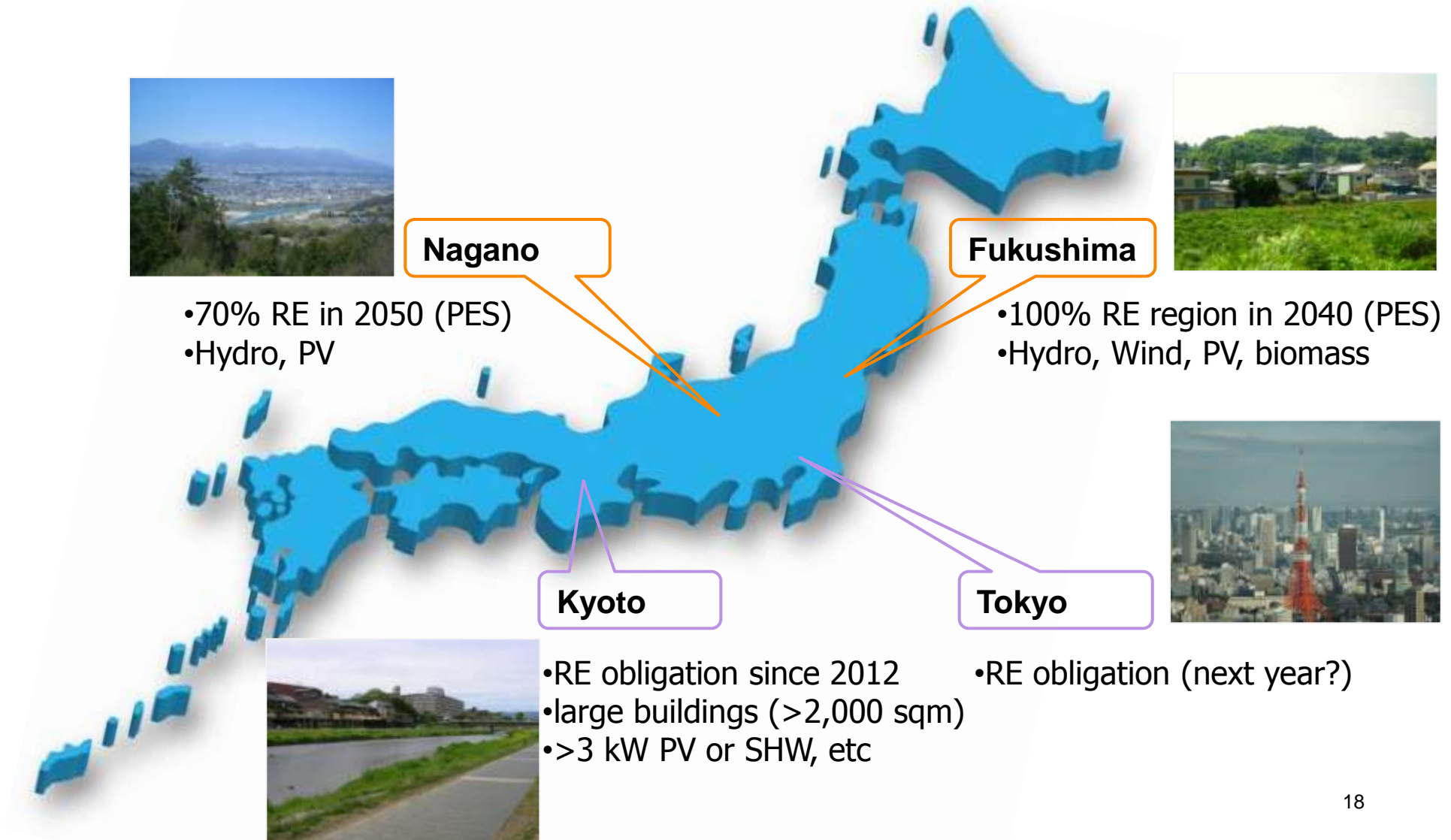






New Local Targets and Policies

Some prefectures aim 100% RE regions or RE obligation.



Traditional Failure of Local RE Projects

Most cities try to build high-tech and costly RES, then repeat failures

ex) Biomass-Nippon (Japan) Comprehensive Strategy (2003-2008)

- Evaluated by Ministry of Internal Affairs
- 80% of 214 projects are no use, 20% shows limited effect
- More than 130 billion yen (=1.3 billion euro) was wasted.



Community Power in Japan

Community Power Definition

1. Local stakeholders own the majority or all of a project
2. Voting control rests with the community-based organization
3. The majority of social and economic benefits are distributed locally

* A project can be defined as “Community Power”, if at least two of the three criteria are fulfilled

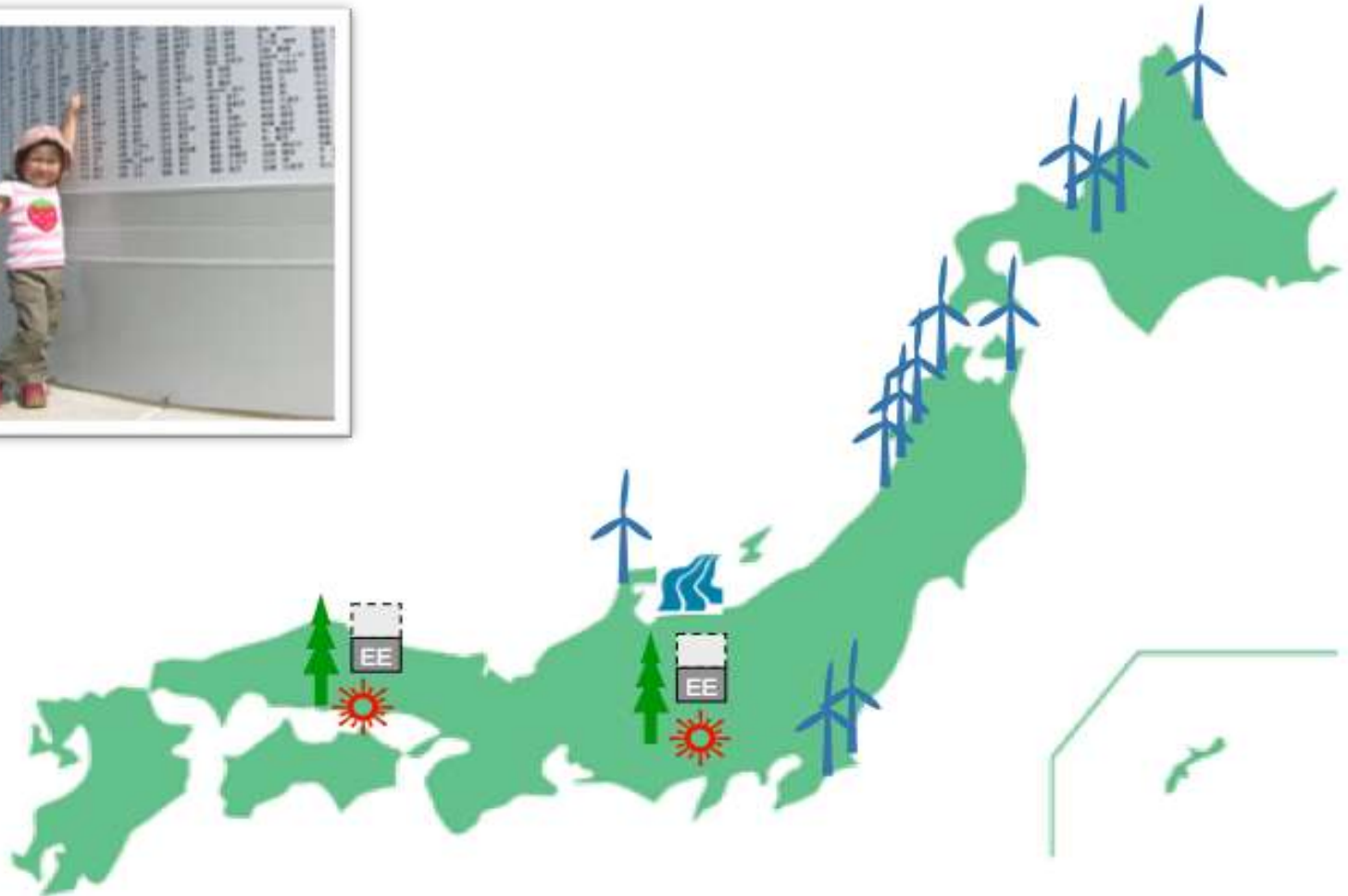
Community Power in Japan

Brief History of Community Power in Japan



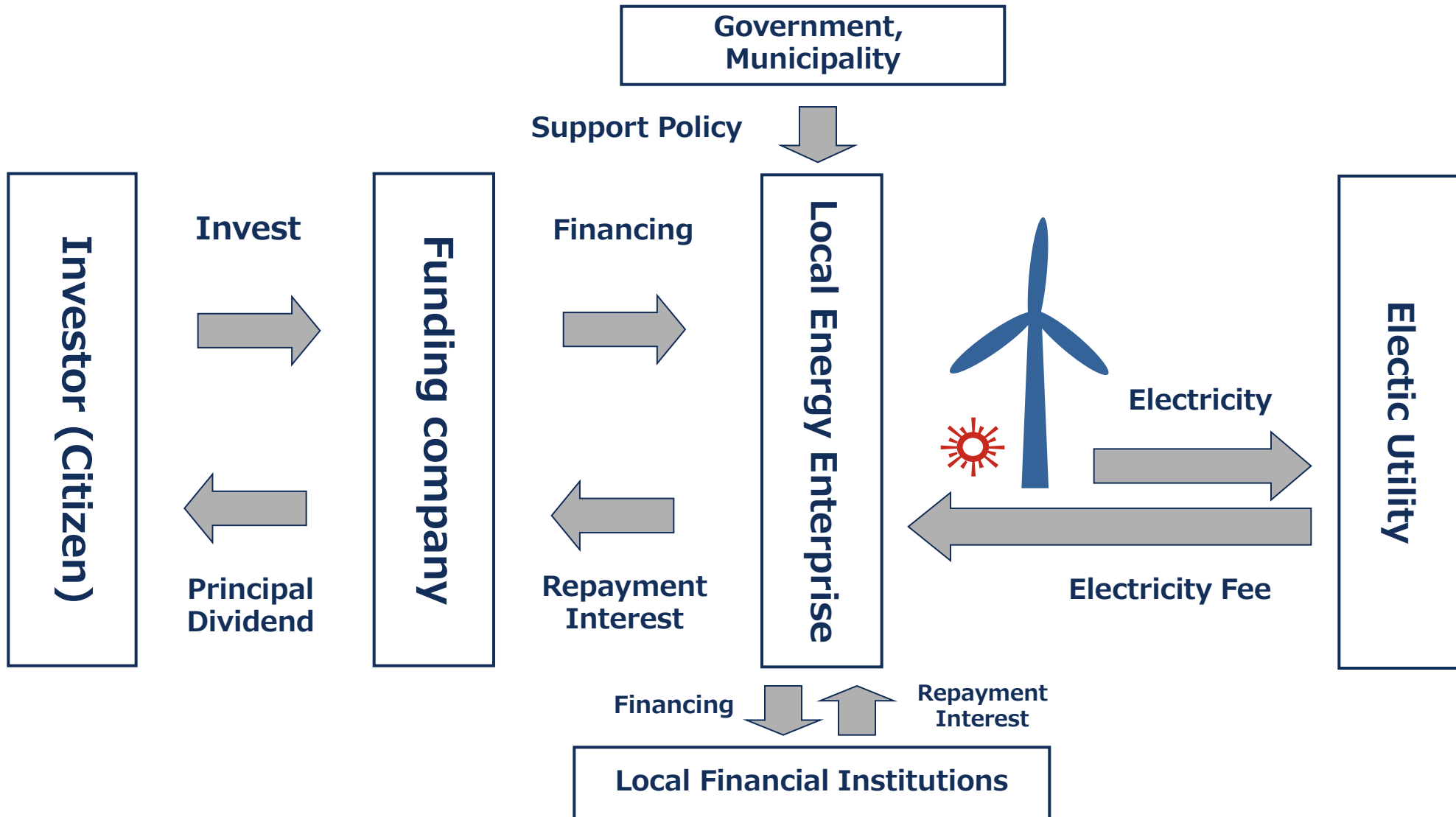
Community Power in Japan

- Over 6,000 investors, 3.8 billion yen
- 100,000~500,000 yen/lot



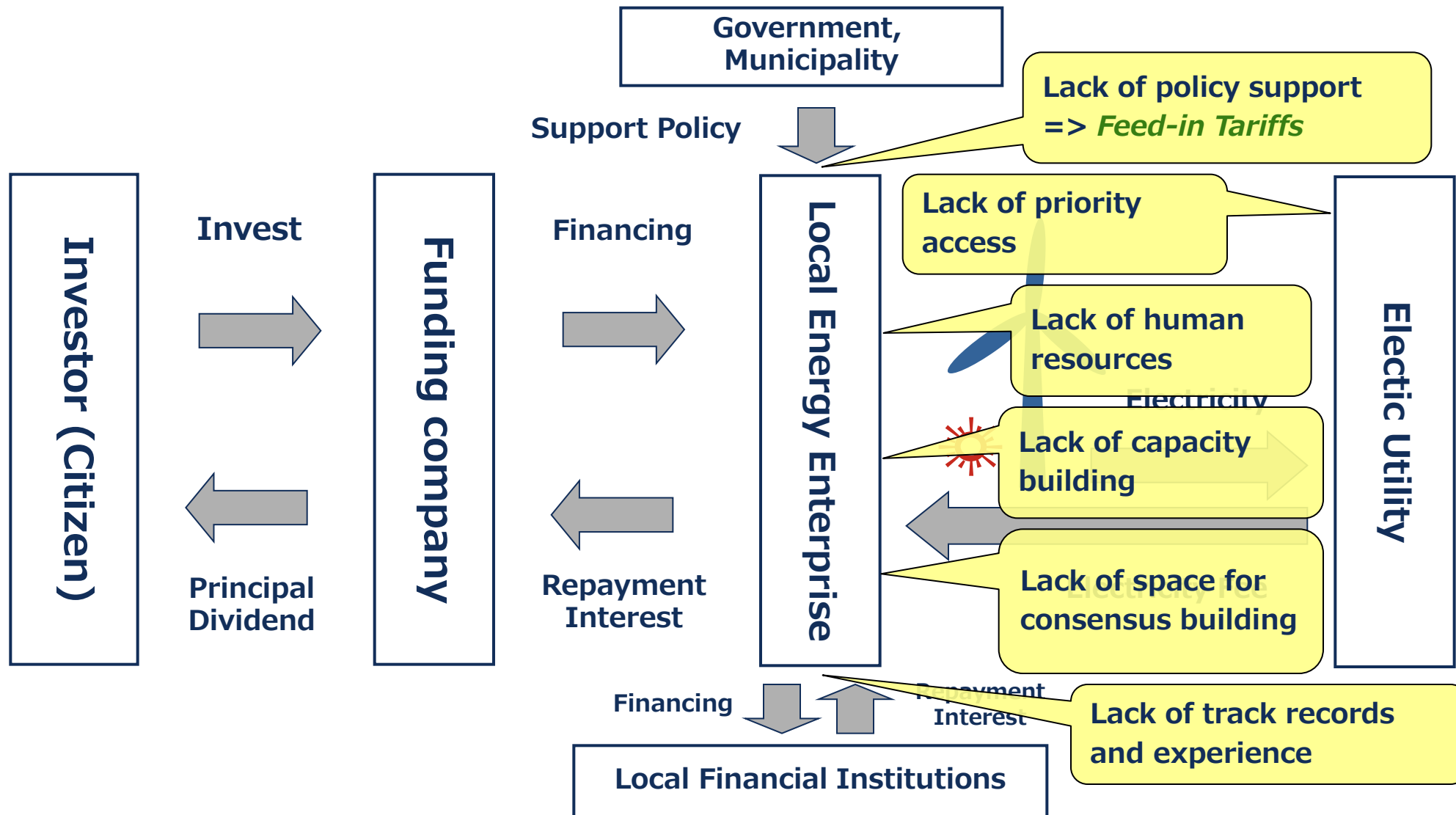
Community Power in Japan

Community Power Project Model



Community Power in Japan

Community Power Project Model and Barriers



Community Power in Japan

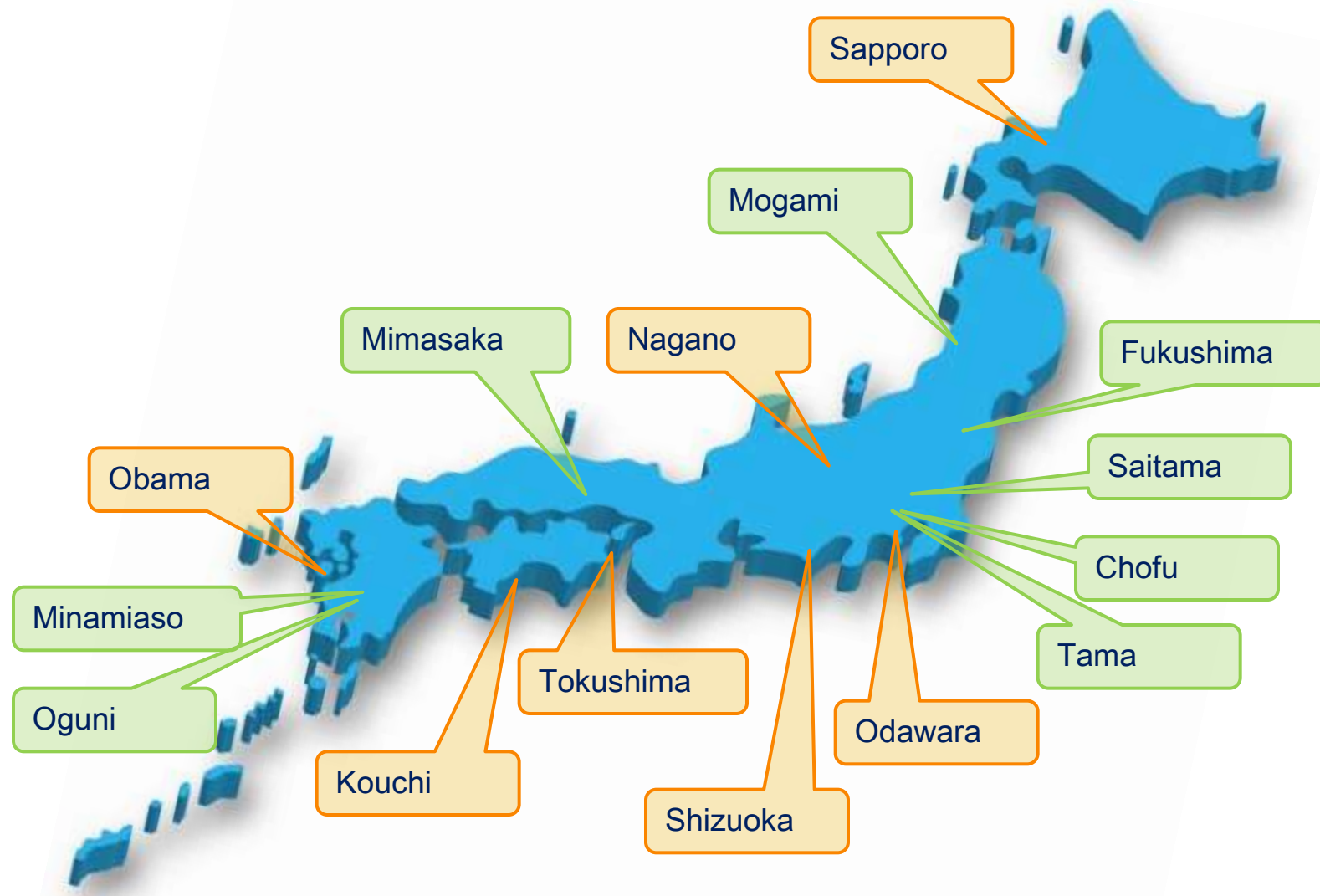
Support program by Ministry of Environment

Objective

- Setting up local base for renewable energy
 - Organizing local renewable energy council
 - Appointing local coordinators
 - Making concrete business plan
 - Exploring fund-raising options
 - Building social consensus
 - Starting the business project (within 3 years)

Emerging Community Power Initiatives

15 community power candidates



The Case of Odawara Renewable Energy Council



The Case of Odawara Renewable Energy Council



Odawara City

- West part of Kanagawa
- Population of 197,000
- Warm climate
- Surrounded with Hakone mountain, Sakawa river and Sagami bay
- Historical castle town
- Major commercial center
- Bedroom community for Yokohama and Tokyo

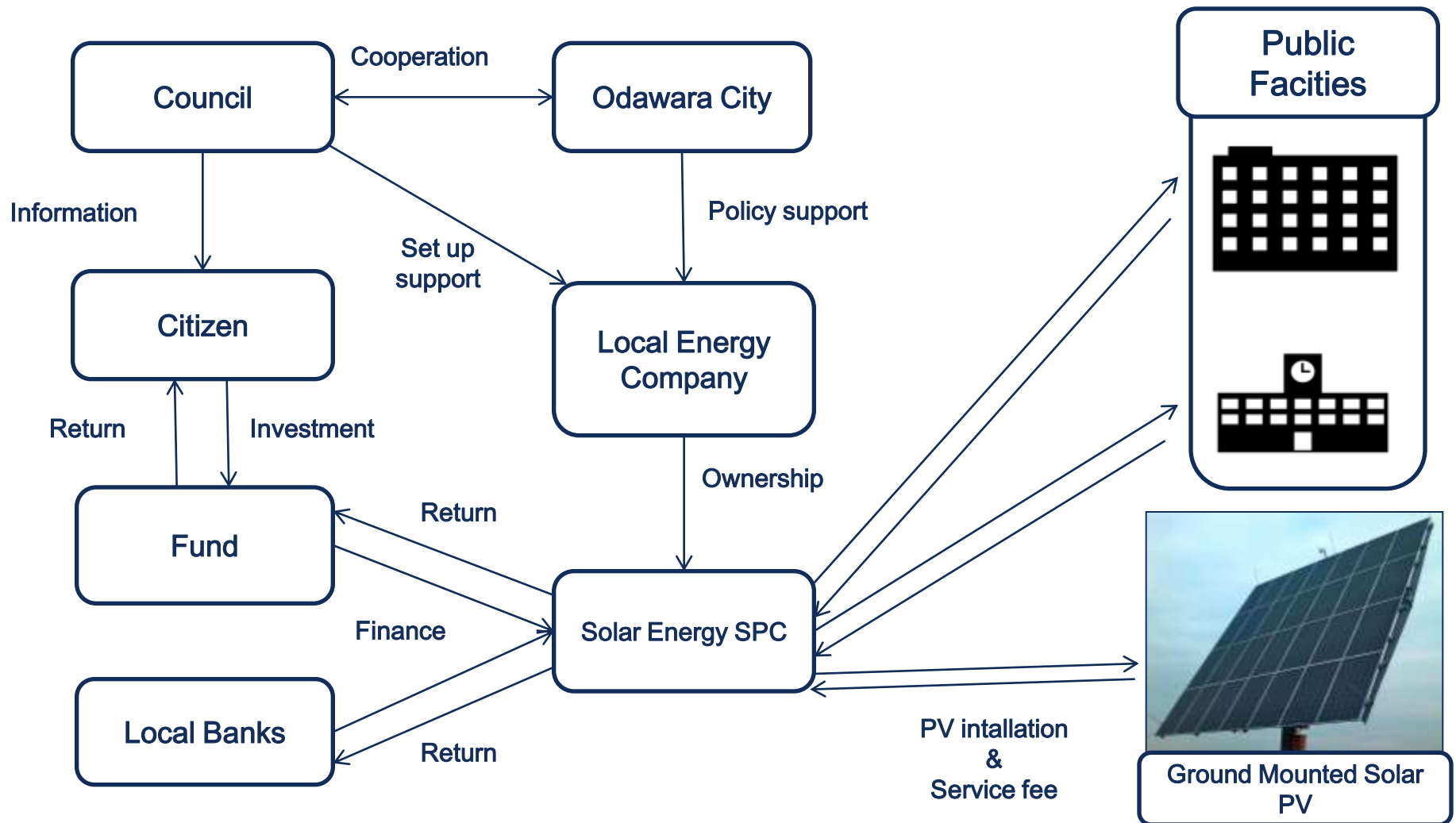


The Case of Odawara Renewable Energy Council

- Mayor's initiative for local renewable energy after 3.11
- Odawara City applied for the support program of Ministry of Environment, and adopted as model city in 2011 fall
- Organized “Odawara Renewable Energy Council” as a local space for planning and consensus building
 - Two coordinators from the council members
 - Distributed PV project planning team
 - Secretariat: Odawara City environmental policy unit

The Case of Odawara Renewable Energy Council

Planning of Distributed Solar PV Project (tentative)



National Prospects & Barriers

1. New strategy is crucial for the future energy policy
 - RE supplies more than 25% of EI. in 2030, but how much in 2050?
 - EI. market liberalization and transmission grid?
 - RE in heat and fuel sector? (+ energy efficiency and CO2?)
2. FIT has started but uncertain
 - Considerably high tariff in FY2012 but no future assumed tariff
 - Administrative barriers; grid constraints, existing law restrictions
 - Backlash: Japan could follow Czech case
3. Local communities start off RE projects
 - Some prefectures discuss ambitious targets and policies by themselves
 - Most cities heavily rely on national subsidy and consulting companies
 - MoE starts new program for capacity building

Local Prospects and Barriers

1. New targets and policies

- Fukushima and Nagano prefecture plan to set 100% RE targets
- Kyoto introduces RE obligation from this April and Tokyo follows
- most cities try to build high-tech and costly RES, then repeat failures

2. Lessons from MoE program

- FIT opens up opportunities, but poor capacity in local community
- Learn by doing process in uncertain local contexts
- Need for locally optimized support activities (i.e. Diversity of local contexts)

3. Lessons from Odawara case

- Identified conditions for successful process:
 - Mayor's political commitment
 - Organizational basis in the city administration
 - Rich social capital in local commercial and industrial community
- Need for broader participation, especially women and young people

Thank you for your attention

Nori & Shota



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