



JAPAN  
RENEWABLE  
ENERGY  
FOUNDATION

# **Social Acceptance of Renewables debunking myth in Japanese context**

**7-9 OCT 2013**

**WORKSHOP ON SOCIAL ACCEPTANCE OF RENEWABLE ENERGY  
INTERNATIONAL RENEWABLE ENERGY AGENCY**

**Japan Renewable Energy Foundation**



## BEFORE FUKUSHIMA- a campaign for “3E”

### renewables

- it may be good for environment, but unstable, expensive and even harmful sometimes

### coal

- it may be bad for environment, but stable and affordable

### nuclear power

- energy which could full-fill the energy security, economy and environment

## AFTER FUKUSHIMA- a campaign for “3E+S”

### renewables

- it may be good for environment, but unstable, expensive and even harmful sometimes

### coal

- it may be bad for environment, but stable and affordable

### nuclear power

- it could be fatal to environment, but still could full-fill requirements of climate change, , energy security and economy

# example: a performance table of energies



	production (procurement)			afloat		consumption		electricity utilization				score	
	development	production (procurement)	import	storage	distribution	ways of utilization	environment impact	cost of supply	stability	backend	accident	P	N
<b>Oil/LPG</b>	negative	negative	negative	positive	positive	neutral	negative	negative	positive	positive	neutral	4	5
<b>LNG</b>	neutral	neutral	neutral	negative	neutral	neutral	neutral	neutral	positive	positive	neutral	3	1
<b>Coal</b>	positive	positive	positive	positive	neutral	neutral	negative	positive	positive	neutral	neutral	6	1
<b>Nuclear Power</b>	positive	neutral	positive	positive	neutral	neutral	positive	positive	positive	negative	negative	6	2
<b>Hydro</b>	negative	neutral	positive	neutral	neutral	neutral	positive	positive	positive	neutral	neutral	4	1
<b>PV</b>	neutral	neutral	positive	neutral	neutral	neutral	positive	negative	negative	neutral	neutral	2	2
<b>Wind</b>	neutral	neutral	positive	neutral	neutral	neutral	positive	neutral	negative	neutral	neutral	2	1
<b>Geothermal</b>	negative	neutral	positive	neutral	negative	neutral	positive	positive	neutral	neutral	neutral	3	2
<b>Biomass/gas</b>	negative	negative	positive	negative	neutral	neutral	positive	negative	neutral	positive	neutral	3	4

# example: disinformation of renewable energy policy

## ドイツの政策転換が再エネの「落とし穴」

再生可能エネルギー推進の第一人者ドイツだが、その月に控え、あらためて運用方法が争点となった再エネ推進の「落とし穴」

### 「壮」 大な実験、は成功と

「エネルギー・ウエニ換」。原子力や化石から脱却し、脱原発の政策は、そう呼ばれ、その取り組みには、貴重な先例として世界が注目している。日本も再エネ政策の手法としたドイツだが、9月の国政選挙を前に、あらためてエネルギー・ウエニの是非が争点となっている。下図のように、ドイツの全発電電力のうち再エネの割合は、

## 欧州3国に見るFIT

ドイツ、スペイン、英国の失敗例

### ドイツ

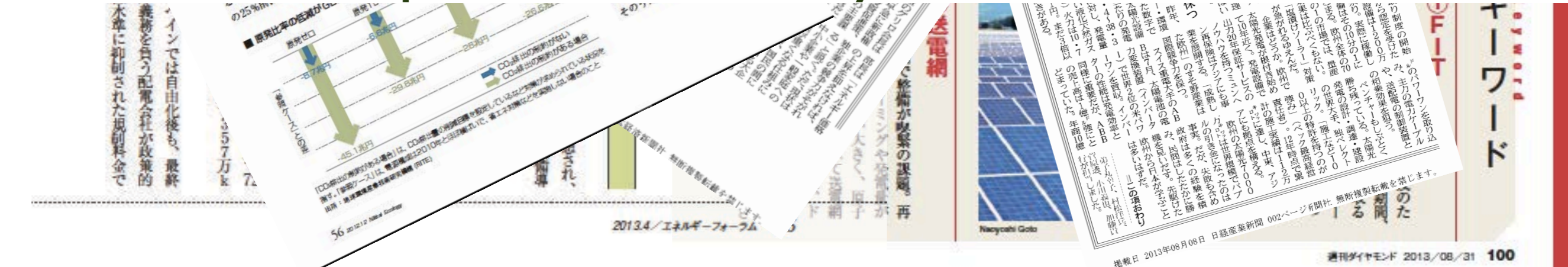
ドイツでは再生可能エネルギー（EEG法）の下2000から施行されたFIT制度により再生エネの設備容量は急伸。よわげ太陽光発電については、05年より一貫して世界第1位（32266万kW、13年1月末時点）の導入量となっている。

### コスト度外視の再エネ導入「産業界の利益吹き飛ばす」

ドイツでは今年から、固定価格買取制度（FIT）が始まりました。ドイツにおける太陽光発電の普及拡大が注目されていますね。確かにFITの導入で設備容量に占める太陽光の割合は4割以上に達しました。実際は供給の半分以上が石炭で、止める国はあっても始める国があるのでしょうか。新国は当面、コストの安い電源やインフラなどへの投資を優先する。再エネの売り先として残るは米国です。ところが、米国は石炭より安価なシェールガスを支える市場がないでしよう。

を分析してほしいという命題を与えられました。原発比率が下がれば本来ならCO<sub>2</sub>は増えるので、25%に近づけるために相当に厳しい削減策を打つ必要があります。どの選択肢も、温暖化対策に投じるコストの目安になる「炭素価格」として、非常に高い価格を設定しなければ削減を実現できません。高い炭素価格で、経済への悪影響を強める結果になりました。

German FiT is a big failure- “a big gimmick” of renewables a lesson needs to be learnt from German policy revise “all the profits of industry will be brow-out”



# example: misunderstandings of technology

## (列島追跡) 福島地熱発電、開発が難航 温泉枯渇に危惧強く

2012/10/8付 | 日本経済新聞 朝刊

東京電力福島第1原発事故を受け、再生可能エネルギーの導入促進へと大きくカジを切った福島県。しかし期待の大きい地熱発電の開発が難航している。周囲の温泉が枯渇しかねないとして温泉関係者の反発が強いからだ。県は企業と温泉関係者が加わる会合を設けて協めるが、歩み寄りの兆しは見えていない。

「今年度の調査はやめていただきたい」「地熱開発よりも原発事故の後始末が先だ」――。7月31日、福島県が主催した地熱資源開発に関する情報連絡会。企業や国の説明に、温泉関係者の反発の声が上がった。



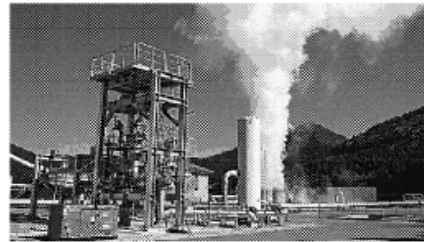
福島県地熱発電所

鳩山政権は温暖化ガスの大幅削減策の柱に再生可能エネルギーの利用促進を据えている。だが導入拡大に伴って地熱開発と温泉産業の調整、風力発電所建設の環境影響評価、太陽光・太陽熱をめぐり日照の権利問題など利害対立が顕在化する可能性があり、低炭素社会実現のアクセラレーター（けん）になりかねない。

政府は今国会に2020年までに温暖化ガスの国内排出量を1990年比25%削減することを明記した地球温暖化対策基本法案（仮称）を提出する方針だ。エネルギー消費に占める再生可能エネルギーなどの割合を20%程度に引き上げる目標も盛り込む見通し。同割

再生可能エネルギー利用

## 利害対立が顕在化



地熱は世界3位の資源量を持つ（出光大分地熱などが運営する滝上発電所、大分県九重町）

地熱↕温泉産業

合は07年度時点で3%で、導入の急加速が目標達成の前提になる。群馬県嬭恋村。地熱発電構想を掲げ08年度に新エネルギー・産業技術総合開発機構（NEDO）の調査事業に応募したところ、温泉枯渇などを懸念する隣接の草

国内のエネルギー供給に占める再生可能エネルギーと発電能力(2007年度、国内)



エコの名の下の環境破壊  
私たちは地熱発電所建設に反対します。



丸尾温泉の湯煙

美しい景観 おいしい水 きれいな空気。そして豊かな温泉。霧島はすばらしい自然に恵まれた景勝の温泉保養地です。

地熱発電はCO2を出さない国産クリーンエネルギーと言われます有効かもしれませんが。しかし今までに地熱発電所が引き起こした汚染や温泉枯渇などの報告もあり全国で温泉関係者の反対運動が

良質の水や温泉 美しい景観は一度失われたら二度と帰ってはびの高原]ではあれほど活発に吹き上がっていた蒸気や噴気が洋

「又日鉱日石金属の子会社である豊羽鉱山（札幌市）が同市南区の定山溪近くで進める地熱発電所建設計画について、同区にある定山溪温泉の旅館組合など3団体が「湯量減少の可能性がある」などとして建設反対を決議し、道と札幌市にも連名で反対を訴える文書を出している」と報じた。分かった。同社は「温泉が奪われる、温泉への影響はない」と反論している。

## 地熱発電に 温泉街反発

札幌・豊羽鉱山跡近くで計画



定山溪3団体

地熱だが、近隣の観光資源や自然環境との折り合いの難しさが浮き上がってきた。同社は「湯量減少の可能性はあっても、温泉街への影響はあつてはならない」と反論している。同社は「温泉が奪われる、温泉への影響はない」と反論している。

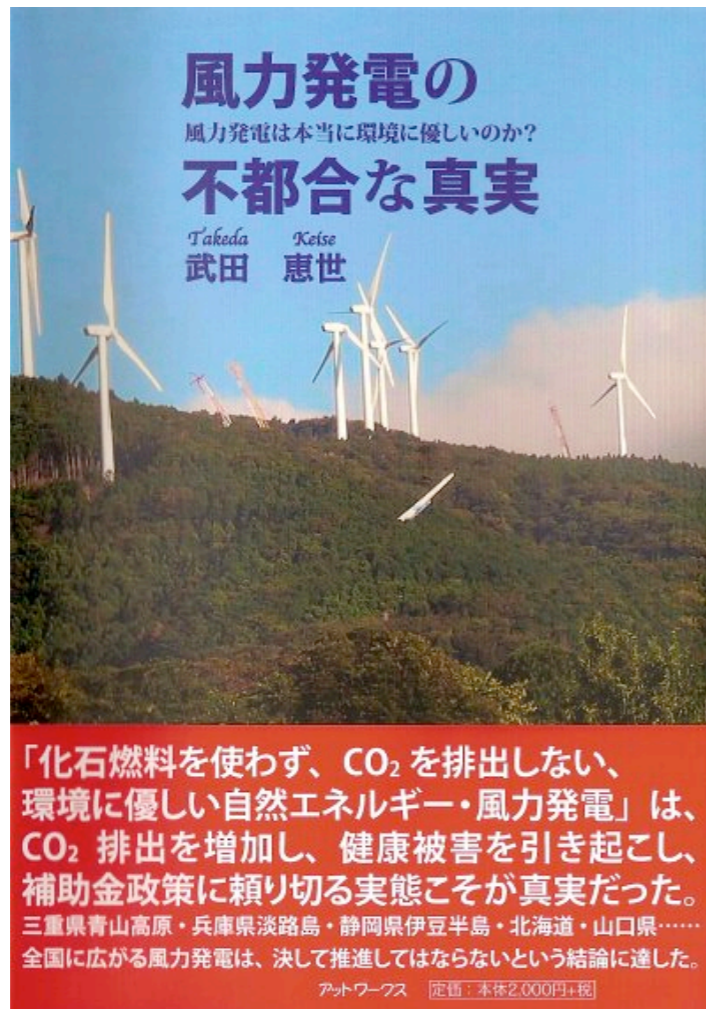


豊羽鉱山が手がける地熱発電所の調査用施設＝今年2月

「湯量減少」を懸念市・道に訴え  
熱水をくみ上げてき...  
温泉街への影響は出...  
温泉街への影響は出...  
温泉街への影響は出...

thousands forest could be destroyed by a “moment”  
we are against geothermal

promoted by hot spring industries



## An inconvenient truth of wind power

“an environmentally friendly power without emissions” is adding CO<sub>2</sub>, causing health hazards and totally relying on subsidies...



















## Stop! Wind Power

Giant wind turbines destroy environment

# reactions from industries and consumers



	Japan Business Federation (KEIDANREN)	The Japan Chamber of Commerce and Industry	Consumers Alliance Japan (SHODANREN)	Japanese Consumers' Cooperative Union
<b>Nuclear Power</b>	 urges the government to advocate the importance of nuclear power	 urges the government to advocate the importance of nuclear power		
<b>Renewables</b>	 claims RE are inefficient and unstable. requires revision or abolishment of FIT	 appeals anxiety for a surcharge	 appeals that consumer are not claiming about surcharge	
<b>Electric System Reform</b>	 appeals anxiety of a raise of electricity prices	 requires restraining raise of electricity prices		 requests consumers' choices for power companies
<b>Climate Change</b>	 requires revision of the target; 25% reduction of CO2 claims it should be oluntary efforts	 requires revision of the target; 25% reduction of CO2	 requires explanation of burden to consumer	 requests strongest efforts



## 1. Focusing on efficient dissemination;

- regular monthly study meetings with media;
- frequent study meetings with each political party;
- time to time workshop meetings with gov committee members

Topics; FiT, grid connection, electricity system reform,  
cost of decommissioning, cost of renewables, global trends  
of RE, new German policies, etc.



## 2. providing “real” on renewables;



newly published one coin booklet

### “Renewable Energy Q&A”



pixta.jp - 5774486

Q1. What is renewable energy?

Q2. Renewables are expensive, aren't they?

Q3. It's unstable, relied on weather, isn't it?

Q4. Is there no environment impact or health effect?

Q5. I've learnt that elec bill in Germany is expensive.


Q6. It might be difficult to be a key energy resource.

Q7. Is it profitable?

Q8. How will the society change?

with prominent key experts as writers.

## 3. providing “real information”

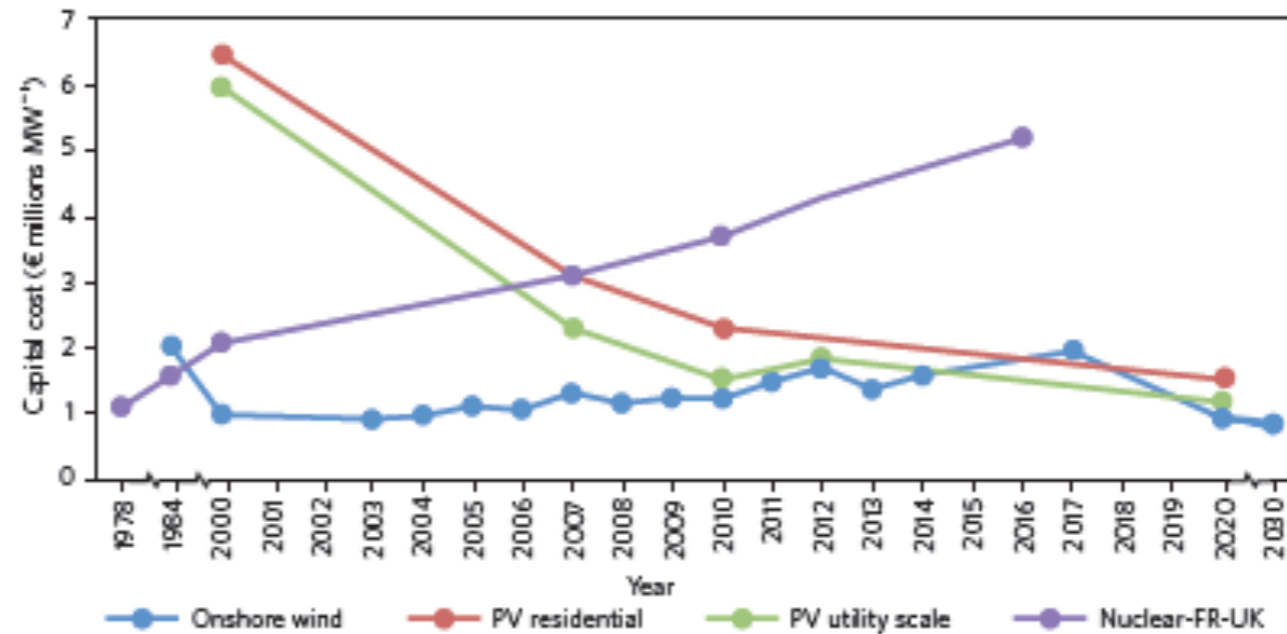


エネルギー基本計画 3つの論点

2013年9月  
公益財団法人  
自然エネルギー財団

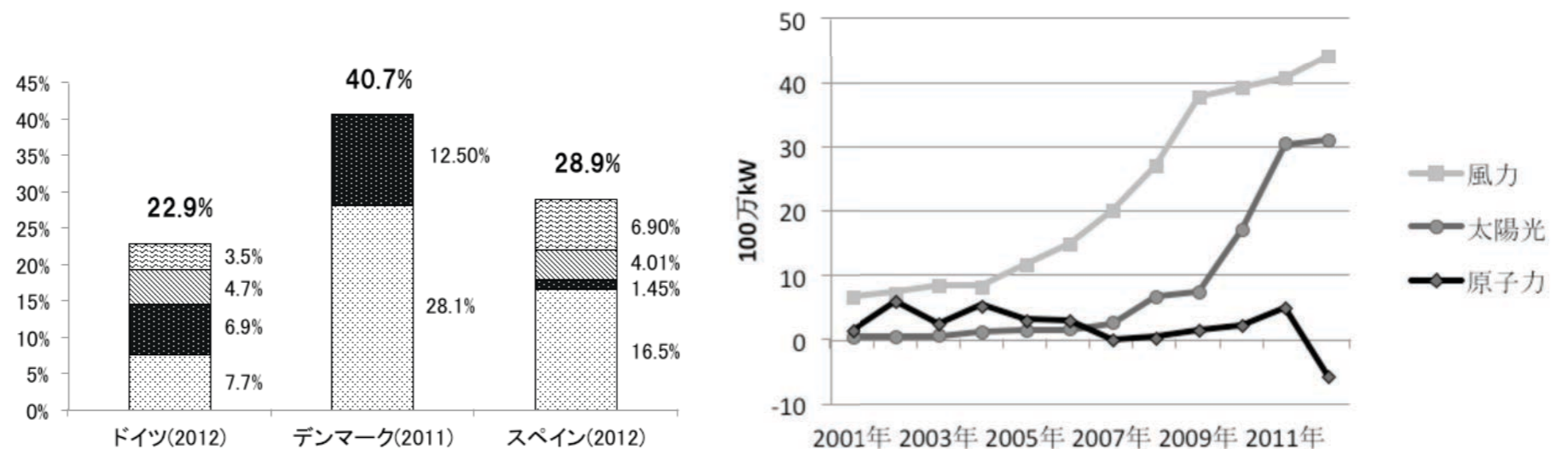
Japan Renewable Energy Foundation 3F, 2-18-3, Higashi Shinbashi, Minato-ku, Tokyo 105-0021 Japan, www.jref.or.jp, 03-6895-1020

COMPARISON OF COST TRENDS OF NUCLEAR, WIND & SOLAR IN EUROPE



source: Sonja van Rensen, Nature Climate Change 3, 779-780 (2013) doi:10.1038/nclimate1991

additional GW capacity trends



source: BMU, DEA, IDAE

source: BP Statistics, IEA, EWEA, EPIC



## 4. providing “real information”

**RE statistics in Japan:** gathering latest figures of development of renewables

- facts should be visible!

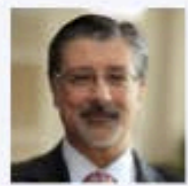
The screenshot displays the website interface for the Japan Renewable Energy Foundation. At the top left is the logo and name 'JAPAN RENEWABLE ENERGY FOUNDATION'. To the right is a search bar with a 'Search' button. Below the search bar are navigation links: 'Access & MAP', 'Inquiries', 'Site Map', 'Privacy', and 'Japanese'. A main navigation bar contains 'HOME', 'ABOUT US', 'JREF ACTIVITIES & LIBRARY', 'Innovation Network', and 'STATISTICS'. On the left, a 'Portal Site Menu' lists 'Portal Home', 'General Renewable Energy Statistics', 'Photovoltaics', and 'Wind Energy'. The central content area features the title 'Renewable Energy Statistics in Japan Portal Site' and a description: 'This information portal site introduces various renewable energy statistics information of japan and abroad'. To the right of the text are graphics including a bar chart with a line graph and a pie chart. Below these is a 'STATISTICS' section with a plus sign icon. At the bottom, a horizontal bar reads 'Renewable Energy Statistics in Japan NEWS & TOPICS'.

## 5. international experts' network

**innovation network:** established in 2012 to facilitate the exchange of information and proposals geared toward the evolution of Japan and the world into a sustainable society. around 50 global experts joined network and started discussions.

### ➔ Expert

Showing : A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



**Adnan Z. Amin**

Director-General, International Renewable Energy Agency (IRENA)



**Morgan D. Bazilian**

Deputy Director, Joint Institute for Strategic Energy Analysis (JISEA)



**Daniel Hugo Bouille**



**Bernard Chabot**

International Consultant and Trainer on Renewable and Sustainable Energy  
BCCONSULT, France



**Michael T. Eckhart**

Managing Director, Citi Corporate and Investment Banking



**Mohamed El-Ashry**

Senior Fellow, UN Foundation



**Jose Etcheverry**

Associate Professor and Co-Chair, Sustainable Energy Initiative, Faculty of Environmental Studies, York University



**Dörte Fouquet**

Lawyer/Partner, Becker Buettner Held



**Dolf Gielen**

Director, Innovation and Technology Centre (IITC) of the International Renewable Energy Agency (IRENA)



**Paul Gipe**



**Stefan Gsänger**

Secretary General, World Wind Energy Association



**Kirsty Hamilton**

Associate Fellow, RE Finance Project, Chatham House

## 6. international experts' network

**REvision Conference, seminars, workshops** : started in 2011, JREF holds annual international conference, inviting experts around the world to deliver the latest discussion of renewables and energy policies. target could be public, MPs, ministries and experts. audience is more than 600 hundreds, live webcast is available.

since 2012, we hold the conference in front of METI.....



## 6. a study group with nature protection NGOs : Promote discussion of renewable energy use towards sustainable society by going beyond the framework of each renewable energy

### Participants

- The Nature Conservation Society of Japan
- WWF Japan
- Wild Bird Society of Japan
- Japan Wind Power Association
- The Geothermal Research Society of Japan
- Hot Spring Research Center, Japan
- Japanese association for Water Energy Recovery
- Biomass Industrial Society Network
- Researcher
- Ministry of the Environment (observer)
- Ministry of Agriculture, Forestry and Fisheries (observer)
- Institute for Sustainable Energy Policies
- Japan Renewable Energy Foundation

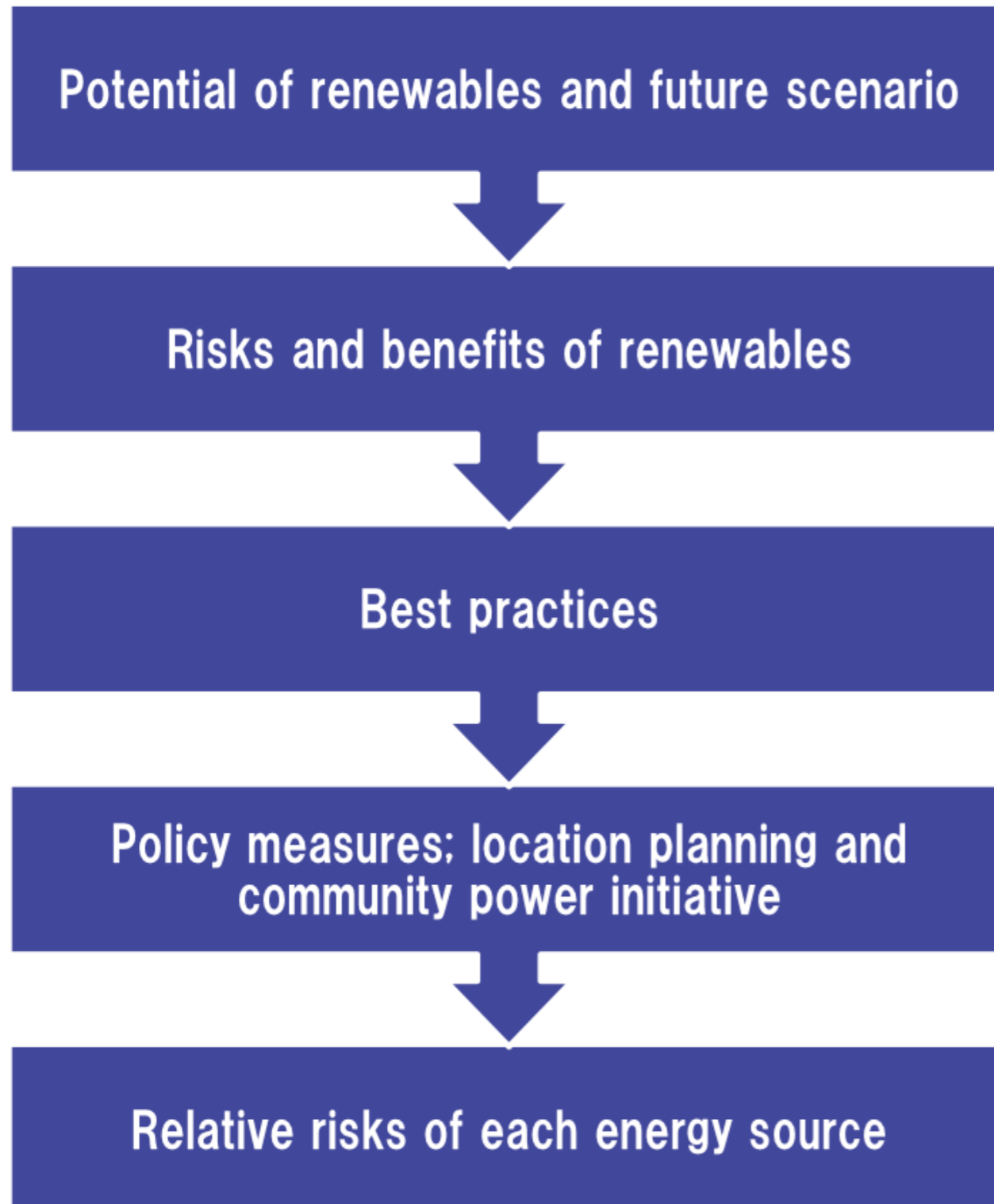
A diverse range of stakeholders

Create consensus to promote renewable energy

Discuss policy measures

Spread consensus and policy proposals to the society

## 6. a study group with nature protection NGOs :



- **Consensus and policy proposals will be released in March 2014.**
- **Each participant will spread the consensus through his or her activity.**

## Debunking the Renewables “Disinformation Campaign”

[http://blog.rmi.org/blog\\_2013\\_07\\_31\\_debunking\\_renewables\\_disinformation\\_campaign](http://blog.rmi.org/blog_2013_07_31_debunking_renewables_disinformation_campaign)



by Amory B. Lovins

Chief Scientist, RMI

.....The sad truth is that the debate on clean and renewable energy is unbalanced, and seldom by accident. .....

..... And when bad news does happen, says ACORE president and retired U.S. Navy Vice Admiral Dennis McGinn, opponents of renewables are pushing it “as if it’s the only news. They are dominating the conversation through misrepresentation, exaggeration, distraction, and millions of dollars in lobbying and advertising.”

This misleading coverage fuels policy uncertainty and doubt, reducing investment security and industry development. Disinformation hurts the industry and retards its—and our nation’s—progress. As Germany has shown, investing in renewables can grow economies and create jobs while cutting greenhouse gas emissions even in a climate as “sunny” as Seattle. We just have to get the facts right, and insist that our reporters and media tell us the truth, the whole truth, and nothing but the truth.



**thank you for your attention**



JAPAN  
RENEWABLE  
ENERGY  
FOUNDATION

CONTACT:

Mika Ohbayashi, Tatsuya Wakeyama  
Japan Renewable Energy Foundation

e-mail: m.ohbayashi AT jref.or.jp, t. wakeyama AT jref.or.jp

address: 2-18-3, Higashi-Shimbashi, Minato-Ku, Tokyo 105-0021, JAPAN