#### International IPPNW Congress

5 years living with Fukushima, 30 years living with Chernobyl

- Effects on health and the environment
- The nuclear chain from uranium mining to nuclear waste
- The challenge: energy revolution

# Japan's Energy "Backlash" with rising community power as small hope



Februay 27th 2016,

Tetsunari IIDA

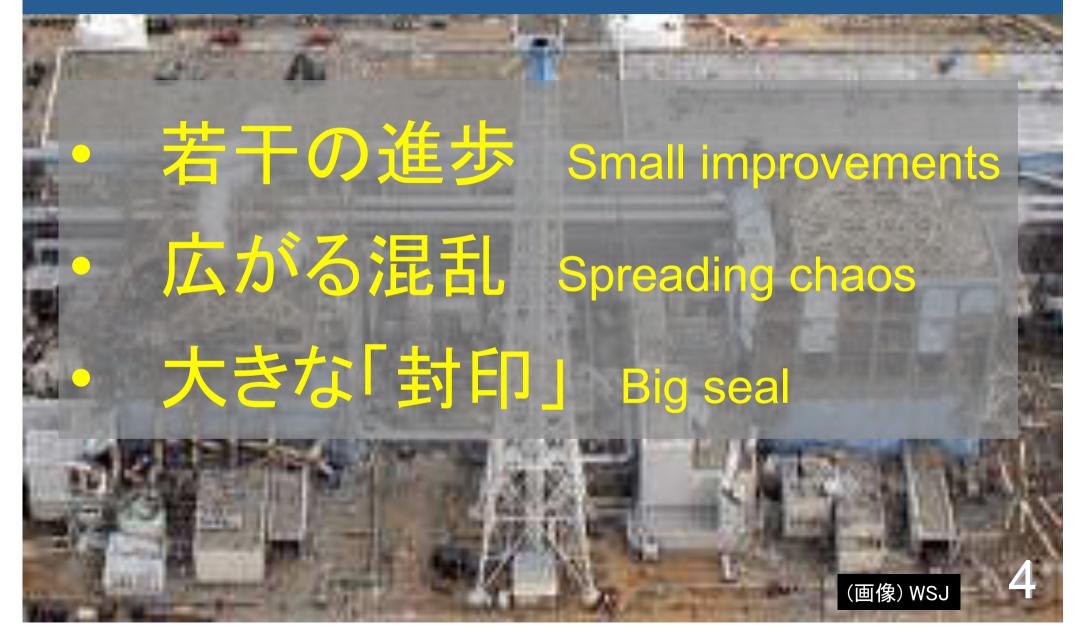
Institute for Sustainable Energy Policies

### Outline

- The reality of 5 years after Fukushima disaster
- 2. Small but fundamental hope
- 3. Japan could be renewable 100% future
- 4. Energy democracy could change



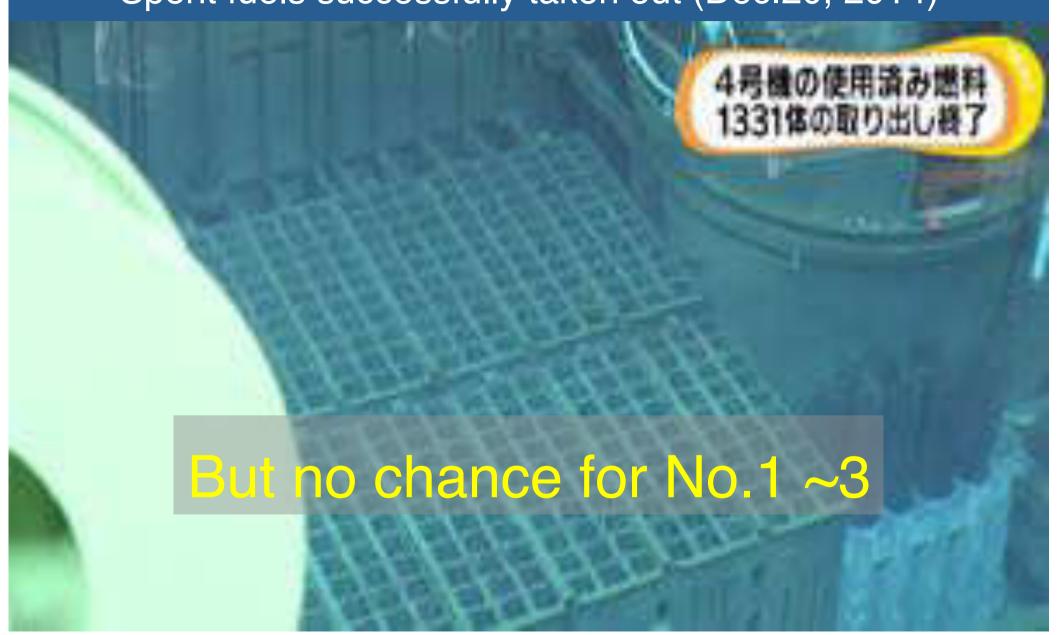
# 現実 The reality



# 広がる混沌 Spreading chaos

- 1. 「安倍の大獄」 "ABE backlash" and "Shock doctrine"
- 2. 描餅の「40年廃炉」 "40 years TEPCO's roadmap" w/o any proof
- 3. 焼太り経産省の罪 All nuclear policy under METI's control
- 4. 廃棄物=(混乱×無責任)<sup>2</sup> Complicating "nuclear waste issue"
- 5. 放射線(能)被ばくを巡る倒錯 "Perversion" over radiation
- 6. 帰還か支援打ち切りか Forced refugee's return to high radiation area
- 7. メディア支配再び Media control resume

## No.4 Fukushima daiichi Spent fuels successfully taken out (Dec.20, 2014)



# 「除染」"decontamination"

#### 小さな進展 small progress

- Progress in "decontamination" in some place
- ✓ "Interim storage site" for decontamination waste decided

#### 広がる混沌 Spreading chaos

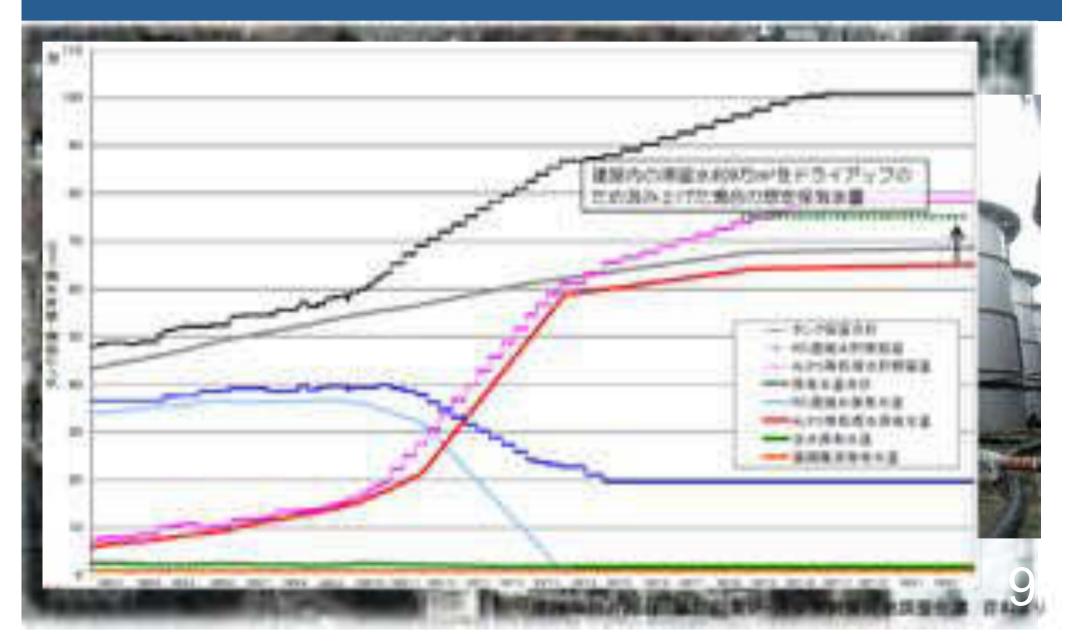
- ✓ Pressure to "return" after "decontamination"
- ✓ Massive transportation of decontamination waste
- ✓ After 30 years' "interim storage"?

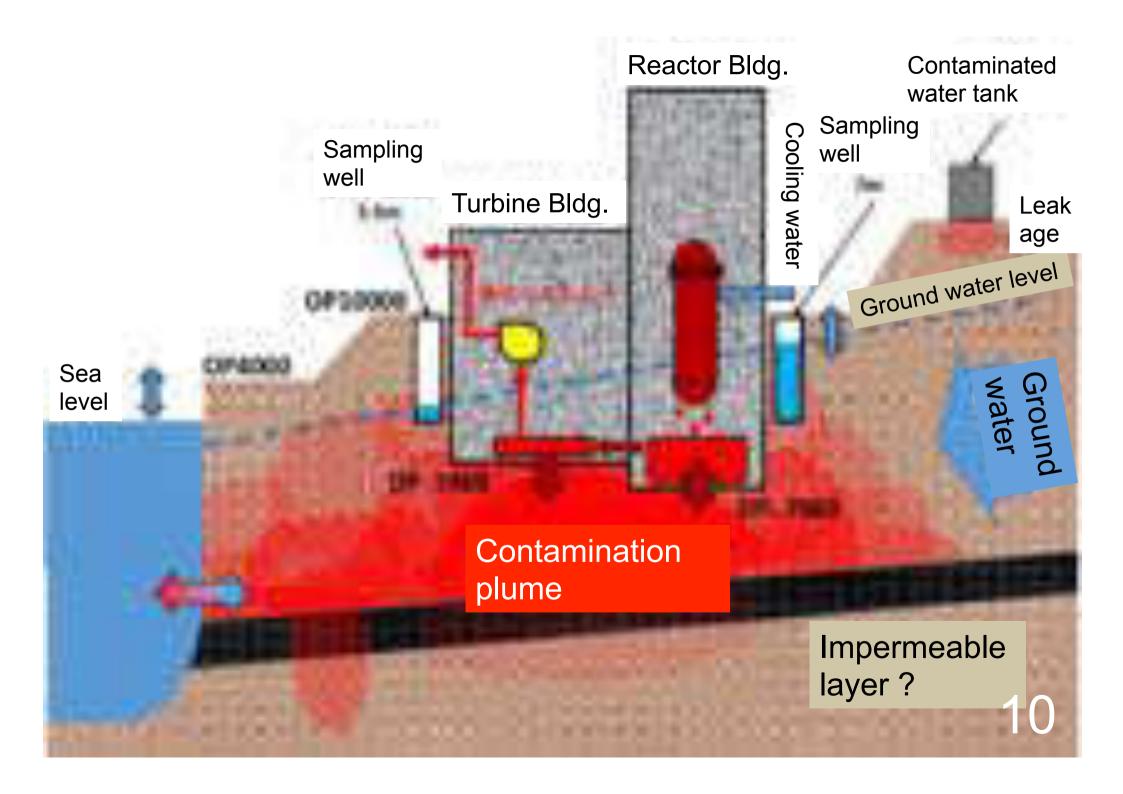


# 凍らない凍土壁 non-sense ice wall



# Endless increasing "tank-farm"



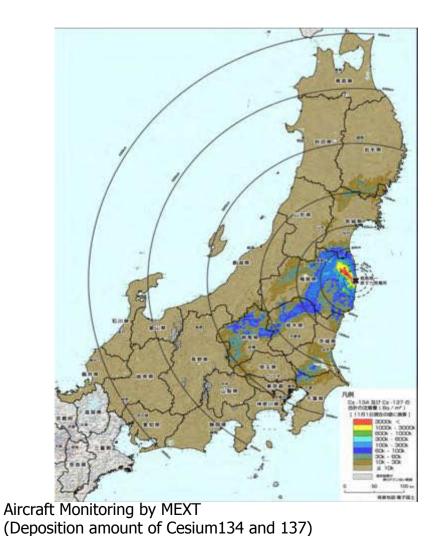


## 5年が経過してもなお10万人の避難者数 About 100,000 refugees left behind

#### 県内6万2849人(8月31日)、県外4万4854人(8月13日現在)

伊達市

13,306.A.



(2013/3/22-(2013/3/22-(2013/4/1-) (2

三市町町からの頭き取った情報(平成25年12月末時点の住民登録数)手基に菓子力能気者生活支援す

避難指示区域の概念図と各区域の人口及び世帯数(平成25年12月末時点)

(2012/7/17~

E STREET CONTRACTOR STREET, SAME

(2012/4/16+)

51,389.A (18,7369/8) 12,092人 (3,737世帯)

3,318人 (1,170世報)

# 大きな「封印」 big cover-up

1. 原発事故原因・資料の「封印」

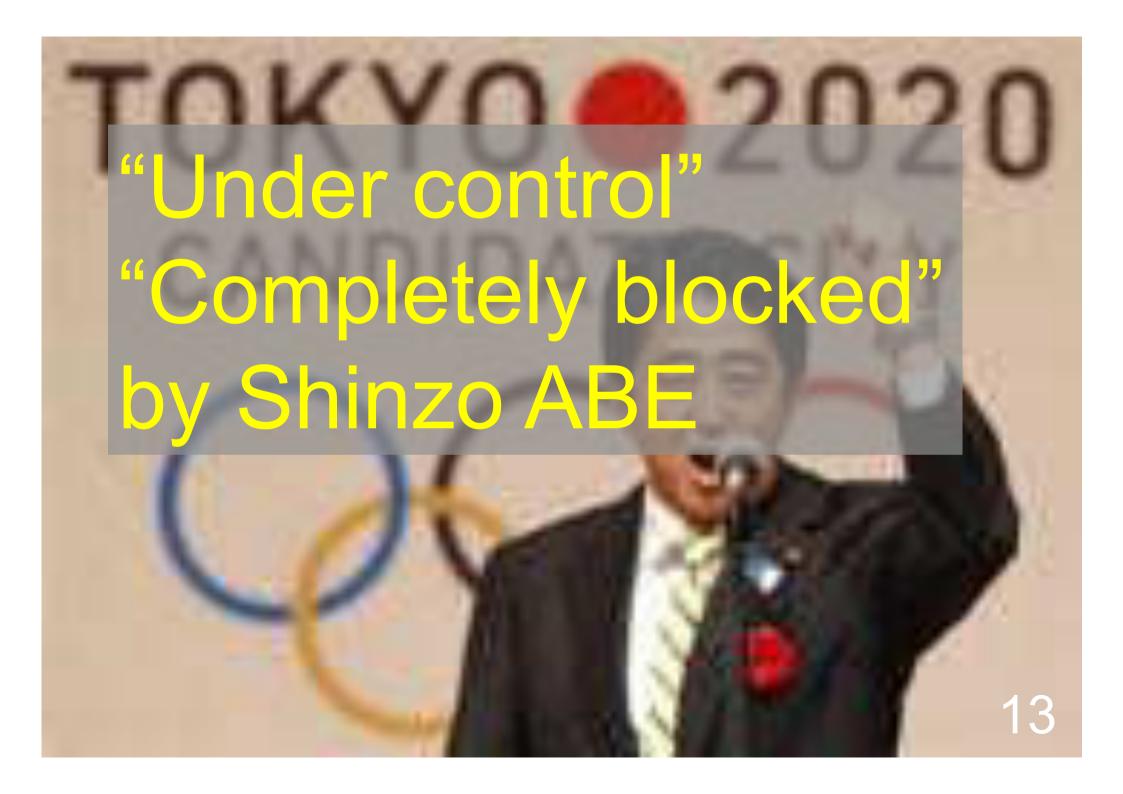
Nuclear accident data & documents

2. 放射線(能)被ばくを巡る「封印」

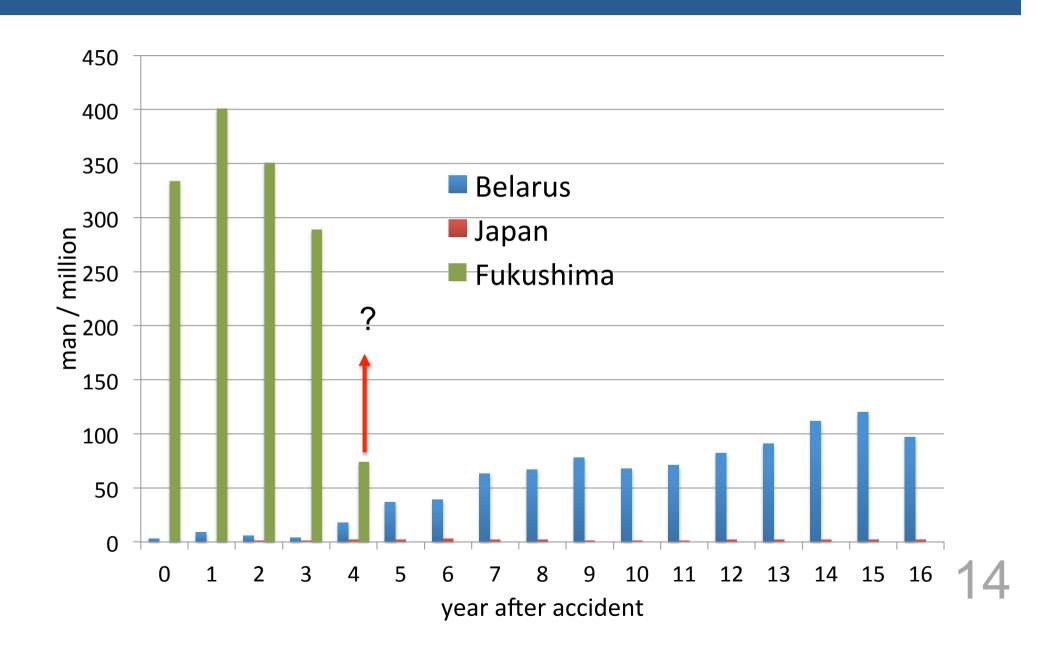
Radiation health effect

3. 原発事故負担を巡る「封印」

Economical burden structure



#### Radiation health effect



### New trend in Justice: the case of Fukui



### 原発再稼動という乱暴(Aug.11, 2015, Jan.25, 2016) Sendai & Takahama Nuke Restart by KEPCO





#### Japan

#### Japanese TV anchors lose their jobs amid claims of political pressure

Supporters of the three news broadcasters say prime minister had private





### 川内原発再稼動という乱暴(Aug. 11, 2015) Sendai Nuke Restart by KEPCO

- 1. Insufficient the new safety regulations
- 2. Not conform to the new safety regulations
- 3. New "safety myth"
- 4. No reality of evacuation
- 5. No one responsible for evacuation
- 6. No improvement of emergency plan
- 7. No consideration of aging
- 8. No refection liability from Fukushima
- 9. No progress of nuclear waste issue
- 10. Political structure of lack of responsibility

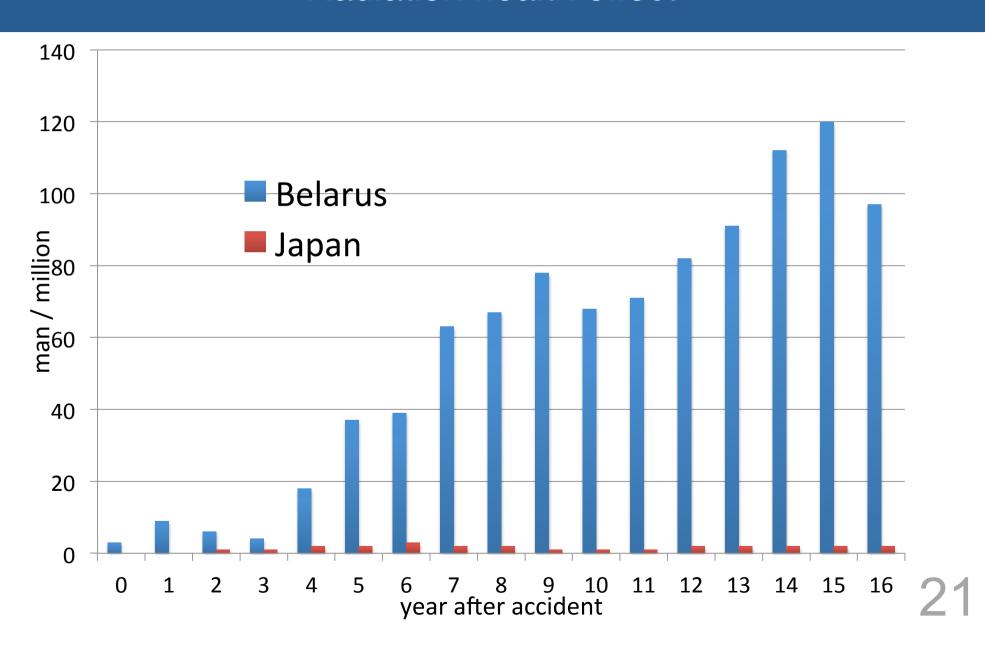
#### Small but potential hope for fundamental change

- 1. Citizens' Jury succeeded in the case against TEPCO
- Fundamental change in public perception about nuclear
- 3. Nation's common experience in large scale energy saving
- 4. Rapid growth in renewable energy by FIT
- 5. Community power rising
- 6. Democracy activated both in energy and peace

# Citizens' Jury: the case against TEPCO (July 31, 2015) (the Committee for Inquest into the Prosecution)



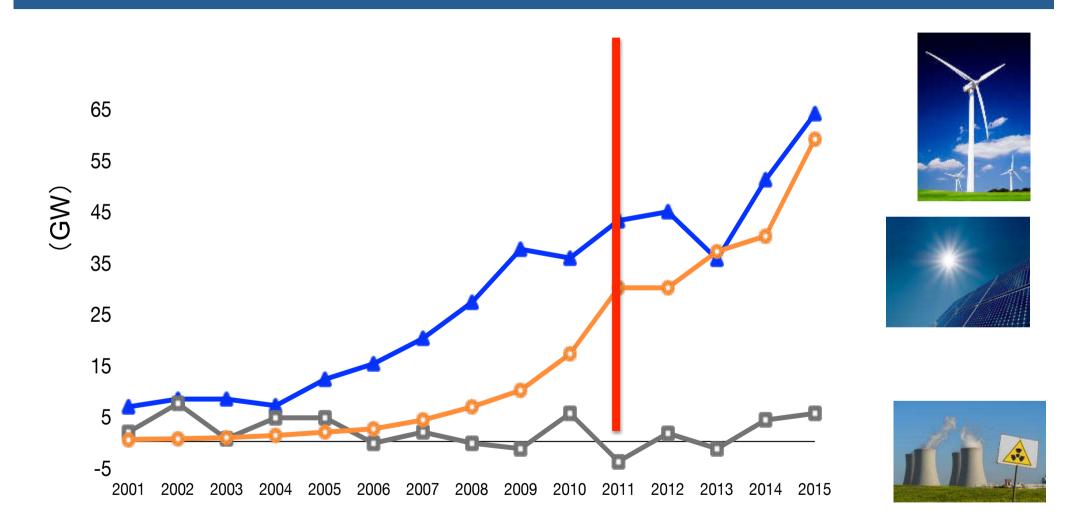
#### Radiation health effect



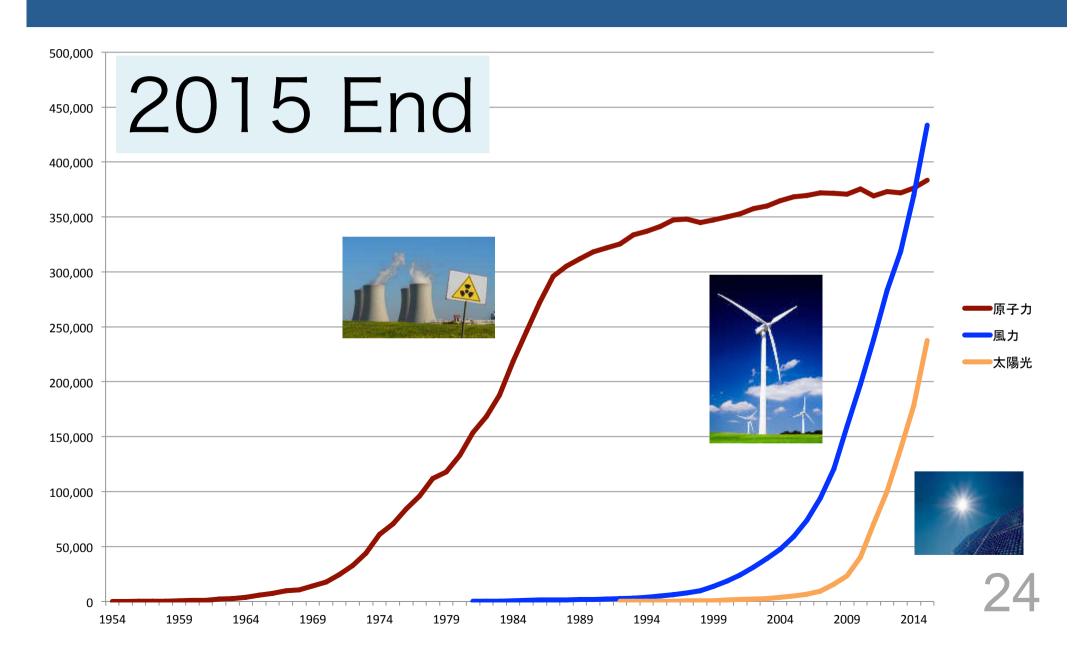
### Comparison between Chernobyl and Fukushima

Dose limit	Chernobyl	Fukushima
50 mSv/y <	<b>†</b>	Forced evacuation
20 – 50 mSv/y	Forced evacuation	Preparing for return
5 – 20 mSv/y		Allowed to live
1 -5 mSv/y	Right to live Radiation monitering	Allowed to live
< 1 mSv/y	Right to live Radiation monitering	Allowed to live

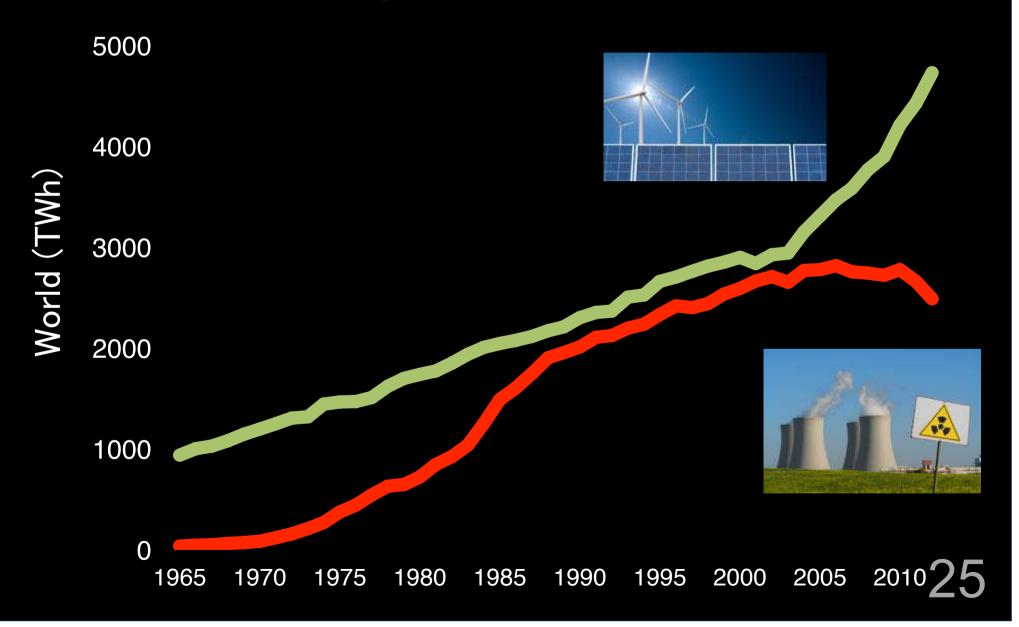
### Explosive growth of RE



### Wind surpass Nuke



# RE v.s. NUKE



### Fundamental change about nuclear

Before 3.11

After 3.11

Cheaper electricity

Good for economy

Supply security

Oil alternative

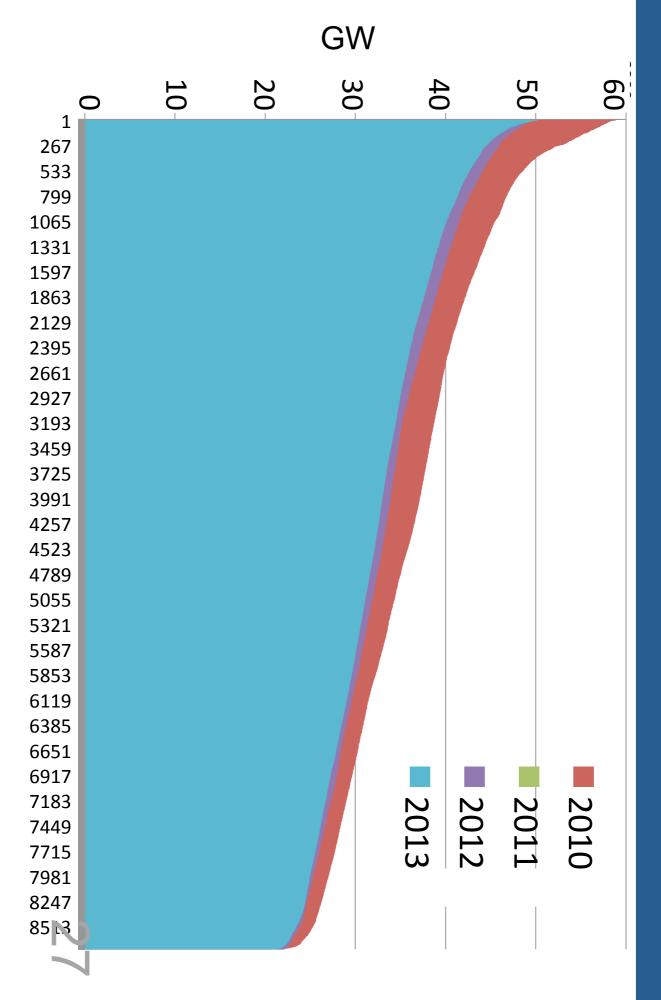
For national security

Safety myth

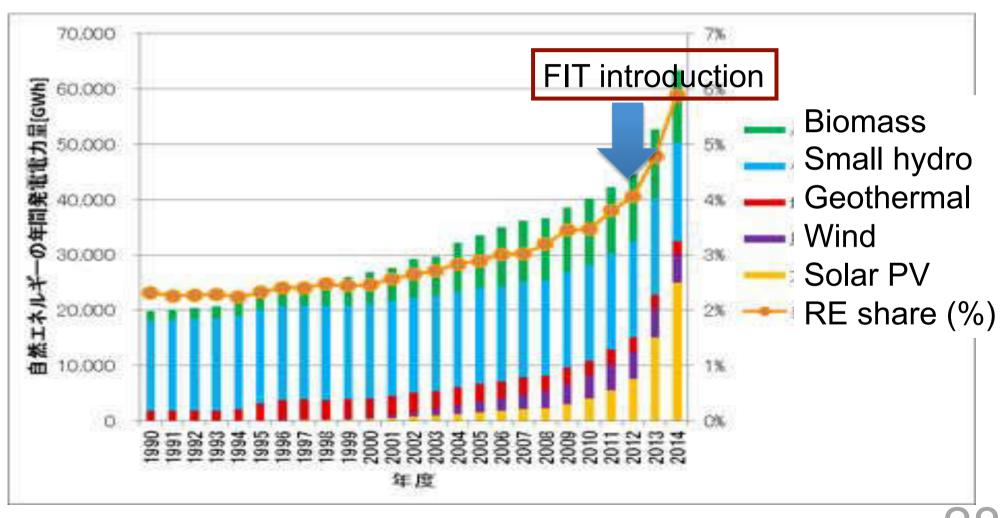
Need for monopoly

More expensive & risk Risk for economy Supply risk Need for stand-by oil Risk for national security Reality of risk Need for open market



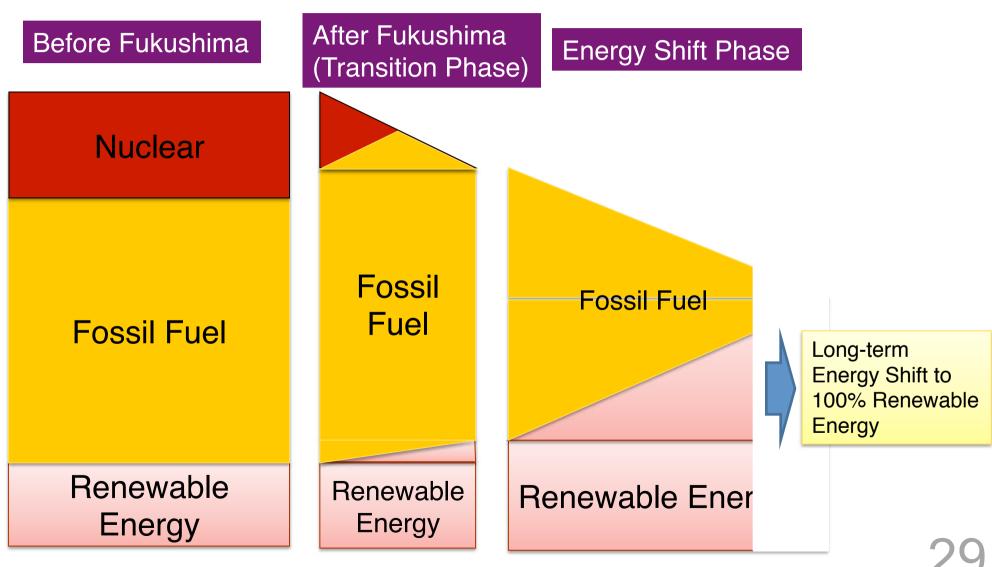


### Rinsing renewables power in Japan



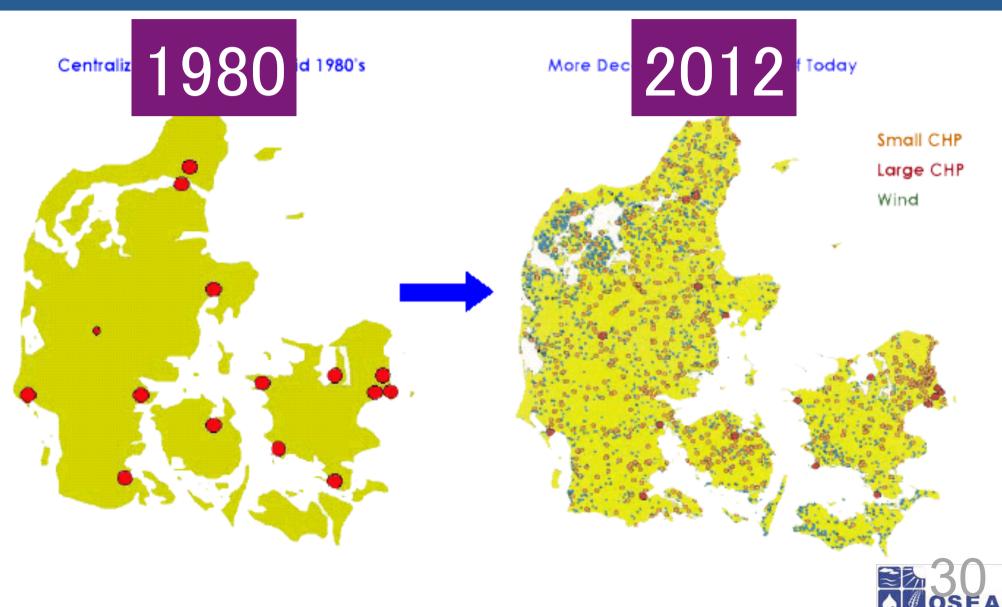
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# Proposal of Energy Shift for 100% RE



### 「第4の革命」~集中から地域分散へ

From "centralized monopoly" to "decentralized community power"



# 2 axes power transition

Large/ Centralized

Nuke/Fossil

RE

Small/
Decentralized

# "Ajisai" (hydrangea) Revolution in 2012 summer

- Jump up after 3.11
- Drastically changed public attitude
- Enhanced by social network
- Poor perception by "old system"
- Chance for nation-wide dialogue

# Community power in Niigata



# Rising community power in Japan

Niceko Obihiro Shiragami Kyotango Toyama Akita Takayama Takarazuka Yamagata **I**wate Niigata Bizen Aizu Soma Hiroshima Minami-Soma Yamaguchi Saitama **IIDA** city Chofu Obama Setagaya Shizuoka Odawara Nagano Kumamoto

### 100% renewable Fukushima and rise of community power



# Global network of community power



# ...made activated democaracy in 2015 Summer



## Limitation of "top-down" approach

Exclusive circle within power elite

Biased by techno-centric view

Dogma, or heavily weighing on the past trend

Alienated from the reality

Negative for innovation and social change

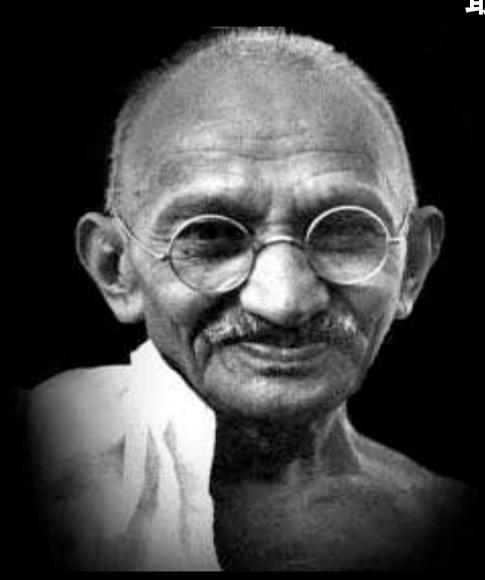


# Energy democracy or bottom-up energy transition

- Fundamental thought, a right to our own power or energy
- Conditions: technically economically being more feasible
- Inclusive, being more people and communities getting involved
- Associative democracy, "participate in action"
- Sense of ownership, strengthen political empowerment
- Social innovation, through "learning by doing"
- Next stage of ecological modernization

# At the crossroad

Old regime	New paradigm	
Centralized	Small distributed	
Monopoly	Community ownership	
Hierarchy	Network	
Fossil & nuclear	Renewable & Energy efficiency	
(Numerical) Economic growth	Sufficiency, justice, welfare 40	



最初は無視される 次に嘲笑される やがて闘ってくる 最後はあなたが勝つ (マハトマ・ガンジー)

> First they Ignore you, then they laugh at you, then they fight you, then you win.

> > -Mahatma Gandhi