

#### **NEWS FLASH**

#### German-Philippine Chamber of Commerce and Industry, Inc.

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15 June 2011

#### German Pavilion + MdB Hans-Josef Fell at 1st Philippine PV Summit

#### **PV SUMMIT**

The 1st Philippine Photovoltaic Summit is an event organized by SEIPI (Semiconductor and Electronics Industry of the Philippines) and PSPA (Philippine Solar Power Alliance) and was hold as part of the 8th Philippine Electronics and Semiconductor Convention and Exhibition (PSECE) from June 1-3, 2011.

A total of 115 exhibitors participated in the PSECE. The PV SUMMIT, being a part of PSECE, counted approximately 60 exhibitors, 8 out of them German. Since entrance tickets were valid for both, PV SUMMIT and PSECE, an exact number of visitors for PV SUMMIT is difficult to identify, but over 5,000 delegates attended the exhibition and convention.

#### MdB Hans-Josef Fell's Visit

The convention program of PV SUMMIT was opened by the Vice President of the Philippines, Jejomar Binay. Subsequently Mr. Fell was introduced to Vice President Binay and asked to address his keynote speech titled "Vision on energy security, Feed-in-Tariff (FIT) and the economics of solar energy, evolution of the Renewable Energy in Germany" to the audience. As the Philippines is at a crucial stage of decision making on Feed-In-Tariffs, Mr. Fell's insights on the development of solar markets were well received. Participants from politics, government agencies and business were supportive of the lobbying efforts of the Philippine solar industry.









**MdB Hans-Josef Fell** meets Vice President Jejomar Binay, Heherson Alvarez Climate Change Commissioner, officials of GIZ, GPCCI and former Ambassador of the Philippines to Germany, Delia Domingo-Albert.

Upon invitation of PSPA MdB Hans-Josef Fell was asked to hold a press conference with the local press. Together with Tetchi Capellan of PSPA, Mr. Fell promoted Solar Power as a clean and natural energy source.





Reporters of the major Philippine daily newspapers, such as Philippine Inquirer, Philippine Star and Manila Bulleting were present; also interviewing MdB Fell was the TV channel UNTV (Progressive Broadcasting Corporation). Please find press articles in the attachment.

Subsequently, Mr. Fell was invited to visit the German Pavilion, foremost the booth of the "renewables – Made in Germany"-initiative. GIZ and GPCCI have arranged a meeting with the Philippine counterparts in energy policy, respectively Department of Energy Undersecretary Jose Layug Jr., National Renewable Energy Board Chairman Pete Maniego and Mario Marasigan, Director of the Renewable Energy Management Bureau.





The group with MdB Fell at the renewables – Made in Germany booth (from left to right):

Markus Dietrich, GIZ consultant, Mario Marasigan, Director of the Renewable Energy Management Bureau, Dr. Bernd Liss,
Principal Advisor for BMU Climate Change Projects, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
GmbH, Pete Maniego, Chairman of the National Renewable Energy Board, Hans-Josef Fell, member of the German
Bundestag, Undersecretary Jose Layug Jr. and Dr. Günter Matschuck, Vice President of the German-Philippine Chamber of
Commerce and Industry, Inc.

Despite a hectic schedule due to a Congressional hearing, the three renewable energy supporters visited the German Pavilion and were eager to meet MdB Hans-Josef Fell. The short but intensive meet-up will hopefully be followed by an extensive exchange of information and ideas. As a recommendation by Mr. Fell, the Philippine counterparts were encouraged to team up and learn from their neighboring countries, e.g. Malaysia.



MdB Hans-Josef Fell Undersecretary Jose Layug Jr. at the "renewables – Made in Germany" booth



The following day, renowned news channel ANC welcomed MdB Fell and PSPA president Tetchi Capellan to a TV interview in their morning show ANC Headstart. During the interview, Mr. Fell was able to dicuss the increasing use of renewable energies in Germany and the state-of-the-art technology developed in Germany. The two solar advocates were able to show the potential of solar energy in the Philippines and the necessary steps to become a solar energy hub.



After the TV interview, Mr. Fell followed an invitation for lunch by the German Ambassador, H.E. Christian-Ludwig Weber-Lortsch. Several representatives of the Philippine Government and the German Business Community joined the lunch. During the lunch, Undersecretary Layug and the representatives of the administration and legislative had another opportunity to get in close contact with Mr. Fell. The initiative's aim of promoting the German success model has reached reality and will help to raise awareness in Germany for the Philippines as a market for solar technology.

#### Attachments:

- ✓ Presentation files of MdB Hans-Josef Fell
- ✓ Press articles of GMA news, Philippine Inquirer and Business World
- ✓ URL for above mentioned TV interview download:
  - Part 1: <a href="http://www.youtube.com/watch?v=tmlLgDHNURA&feature=relmfu">http://www.youtube.com/watch?v=tmlLgDHNURA&feature=relmfu</a>
  - Part 2: <a href="http://www.youtube.com/watch?v=C19EnSZkZEs&feature=relmfu">http://www.youtube.com/watch?v=C19EnSZkZEs&feature=relmfu</a>

#### Hans-Josef Fell, Member of German Parliament

#### **Political posts**

- Spokesman on energy for the Alliance 90/The Greens parliamentary group in the Bundestag
- Substitute member of the Bundestag's Committee on Economics and Technology
- Substitute member of the Defence Committee

#### Politicial achievements

- Hans-Josef Fell wrote the draft Renewable Energy Sources Act (EEG), which was adopted in 2000 in the face of strong political opposition. He was also involved in drafting the law amending the EEG in 2004. The EEG is the foundation for the technological developments in photovoltaics, biogas, wind power and geothermal energy in Germany, which are admired throughout the world. The underlying principle of the EEG has now been copied in dozens of countries.
- Hans-Josef Fell initiated legislation exempting biofuels from tax, which led to growth in biofuels both in Germany and around the world.
- Hans-Josef Fell was also actively involved in establishing the legislative framework for renewables at the European level.
- From 1999 to 2005, as spokesman of the Alliance 90/The Greens parliamentary group on the German Bundestag's research committee, Hans-Josef Fell helped to ensure an increase in funding for research into photovoltaics, concentrating solar power, geothermal energy, bioenergy, batteries for electric cars, bionics, nanotechnology, etc. For concentrating solar power, these funding increases were the most important basis for the current worldwide expansion in this technology, and for geothermal power generation it was the most important basis for the expansion throughout Germany.
- As rapporteur for technology assessment (TA) in the German Bundestag, Hans-Josef
  Fell has initiated many TA reports, which in some cases still offer important
  foundations for legislative developments today, for example: nanotechnology,
  geothermal energy, transport systems of the future, various medical issues such as
  research into the brain, nuclear fusion, and genetic engineering in agriculture and
  medicine.

As a member of the German Bundestag's Defence Committee from 1998 to 2005,
Hans-Josef Fell supported the shift in military training methods towards conflict deescalation, particularly at the Bundeswehr base in Hammelburg. This training in preventing violence during military operations is attracting ever more international recognition, particularly at the level of UN peace operations. In addition, Hans-Josef Fell developed an arms conversion programme.

#### Awards:

(EPIA)

1994:	Solar Prize of the European Solar Energy Association EUROSOLAR
2000:	Energy Globe Award
2000:	Solar prize of the German section of the International Solar Energy Society (DGS)
2001:	Nuclear-Free Future Award – foremost prize of the international
	anti-nuclear movement
2002:	German Solar Industry Prize
2002:	First German Geothermal Award (the "Hard Rock Drill")
2003:	German Biogas Prize, Dr Heinz Schulz Memorial Medal
2006:	Bonda Prize of the European Photovoltaic Industry Association

# 100% Renewables replaces fossile and nuclear

Philippine Solar Summit Manila, 2 June 2011

Hans-Josef Fell Member of German Parliament

### Fukushima March 2011

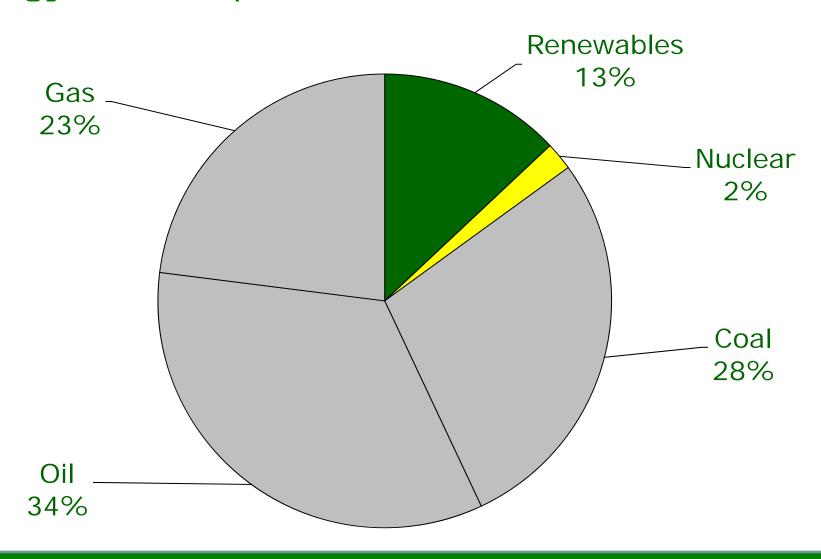


#### Pripjat Towncenter

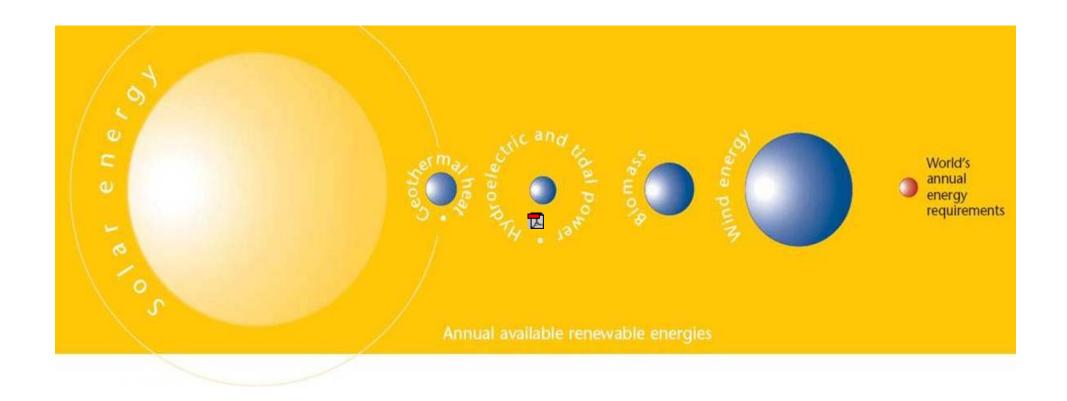
April 2006: 20 years after Tchernobyl nuclear accident



### Share of Renewable Energy in Worldwide Energy Consumption in 2010



### Worldwide Potential Of Renewable Energy



Source: FVS/DLR

#### Solar potential vs. electricity demand



One percent ( ) of the Sahara's surface is enough to meet the world's entire electricity demand using Solar technologies.

#### A Path to Sustainable Energy by 2030



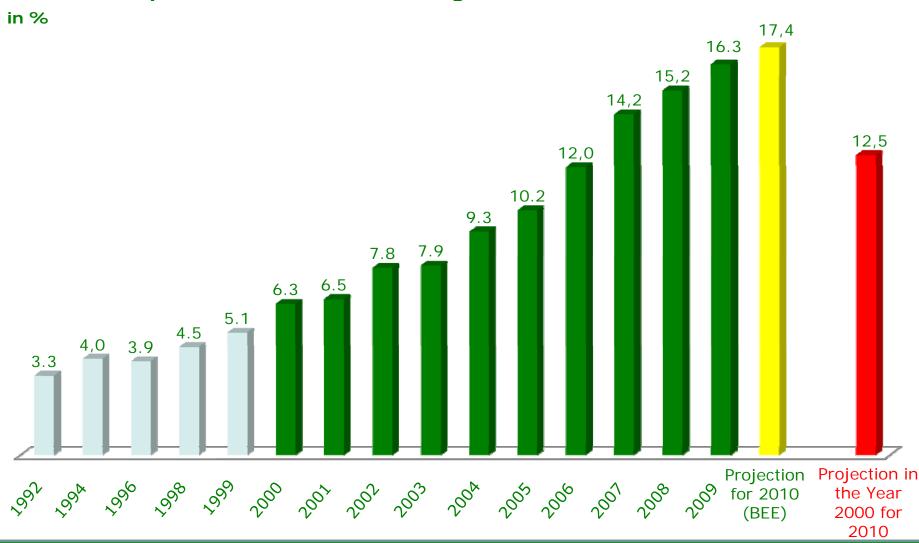
'Wind, water and solar technologies can provide 100 percent of the world's energy, eliminating all fossil fuels.'

(Mark Z. Jacobson & Mark A. Delucchi)

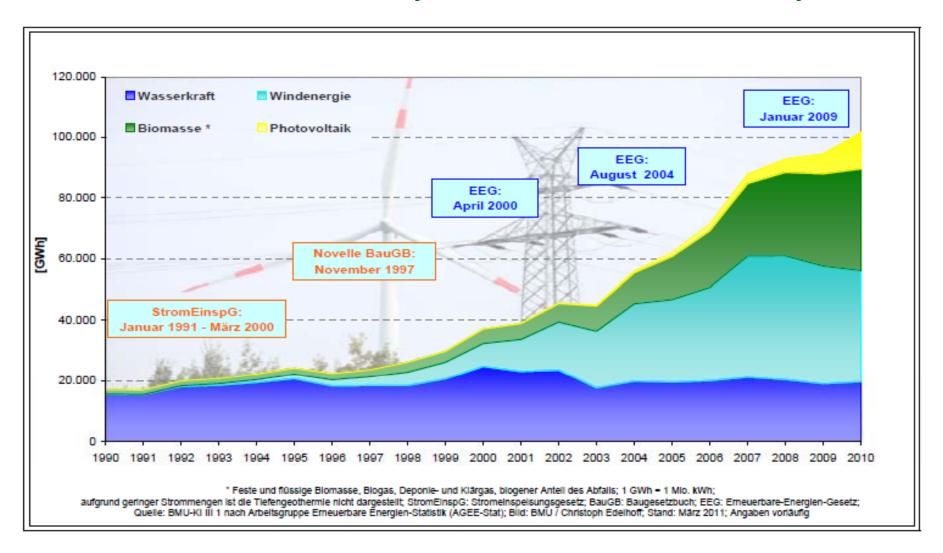
## Costs of Renewable Energy vs. Cost of Continued Use of Fossil Fuels

Estimated costs fossil, nuclear energies (US \$)			
Petroleum Natural Gas Coal Electricity	3350-4475 Bil. 550-830 Bil. 150-300 Bil. 1490-2150 Bil.		
Sum per year (without external costs!)	5000–7750 Bil.		
Sum 2010-2030 (+ 20% rise)	200 000 Bil.		
Sum to replace world's energy with 100 % renewable energies by 2030	100 000 Bil.		

# Share of the Renewables in the gross electricity consumption in Germany

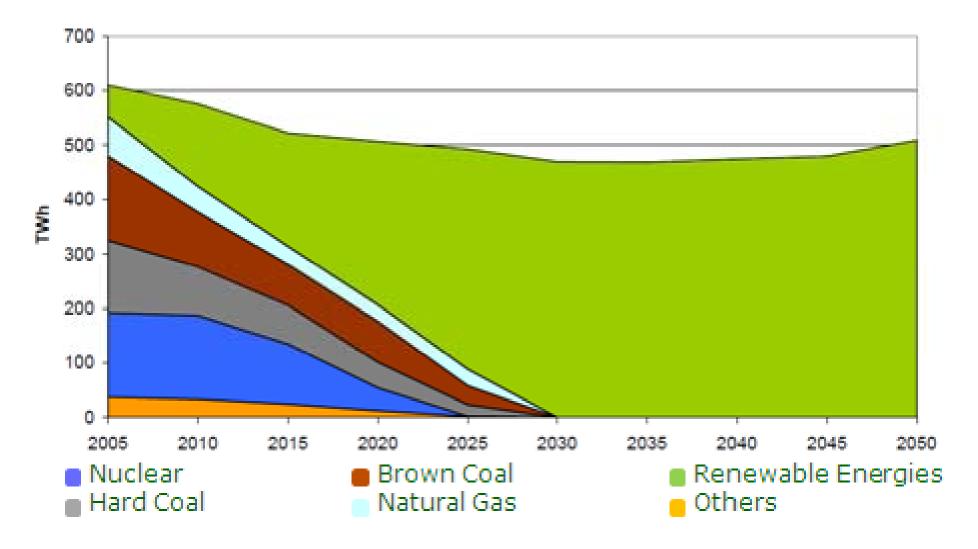


### Renewable Electricity Growth in Germany

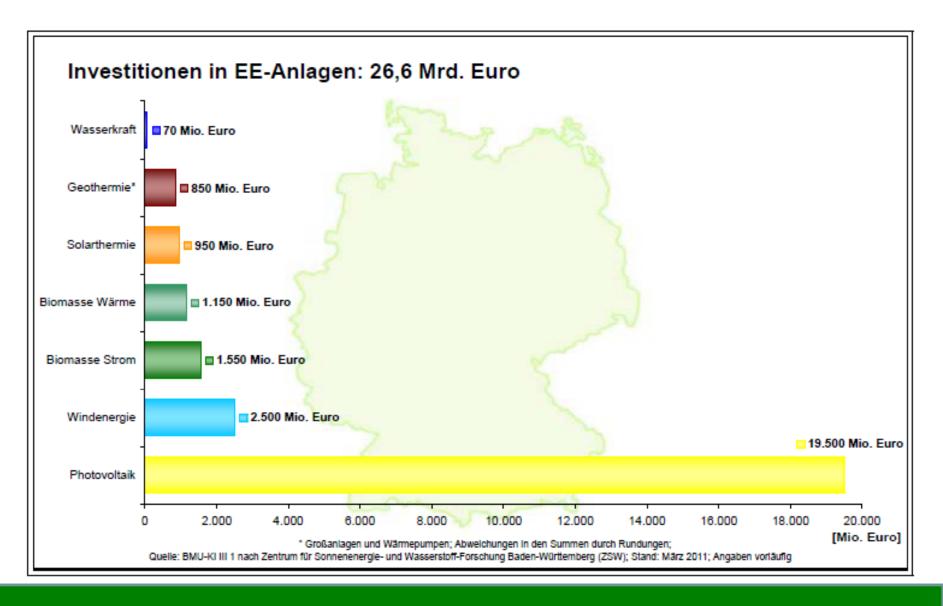


### 100% Electricity from Renewable Energies

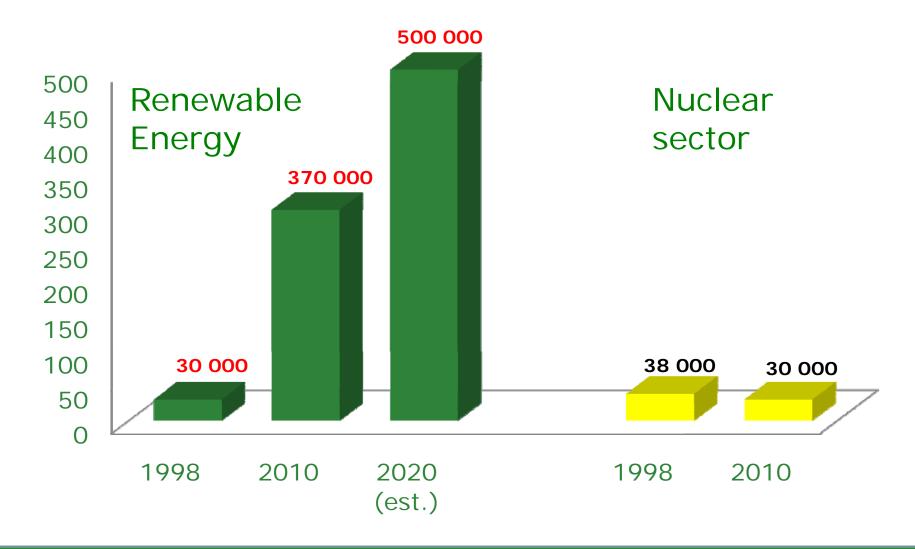
- Resolution by the Green Parliamentarian Group in the Bundestag -



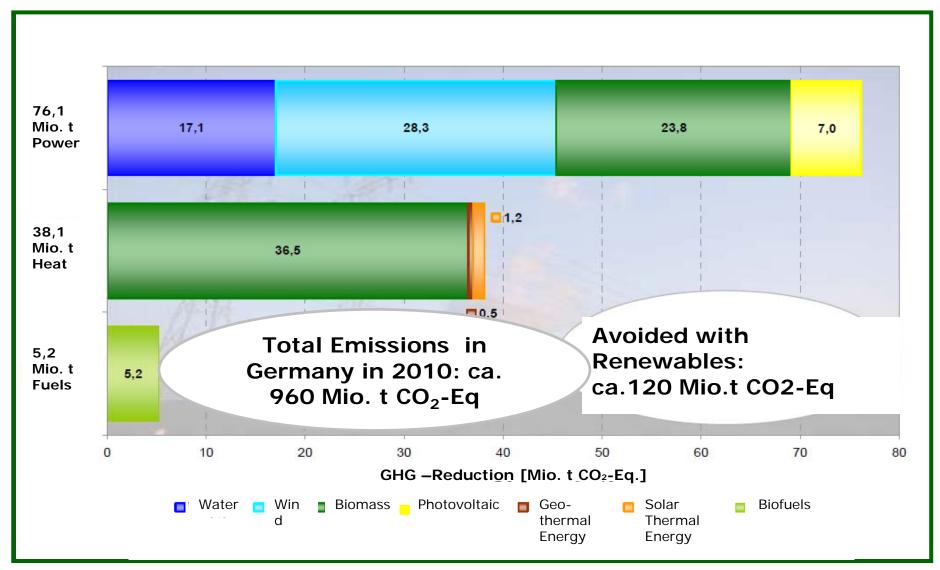
#### Investment in Renewables in Germany in 2010



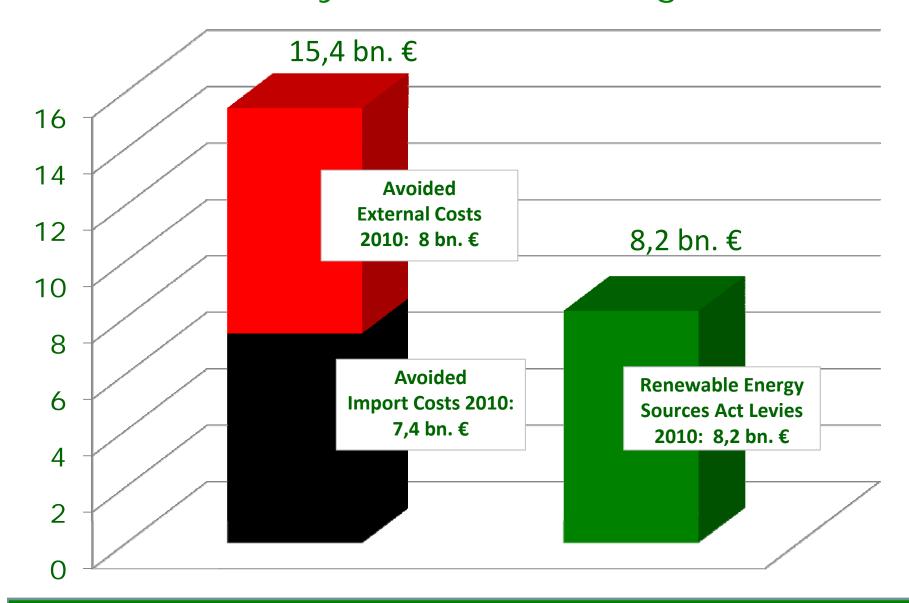
#### Renewable Energy as a Job Engine in Germany



#### Emissions avoided with Renewables 2010 in G

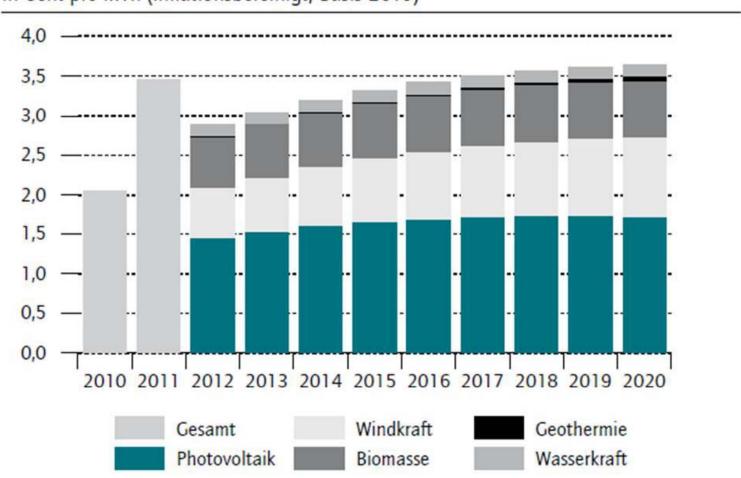


### Avoided Costs by Renewable Energies

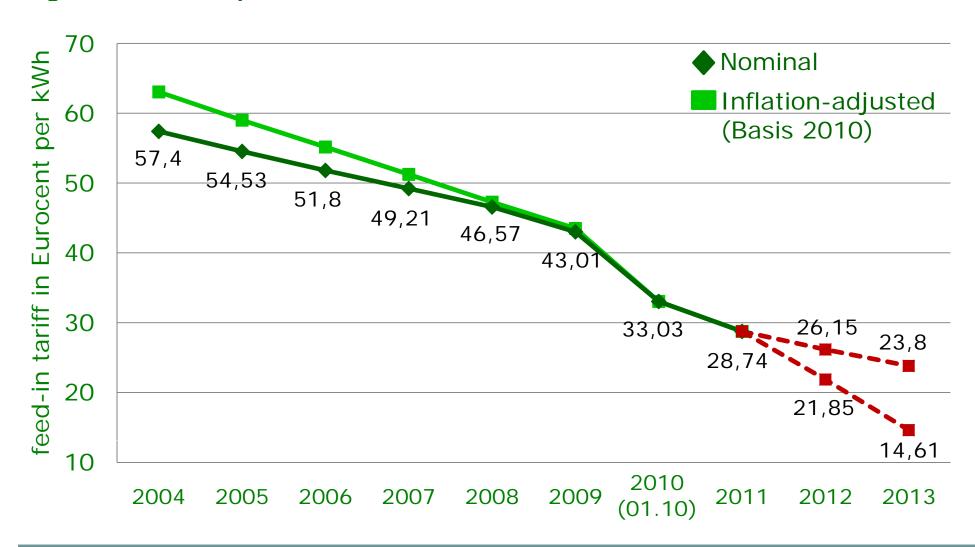


# EEG-aditional costs 2010 and 2011 Estimation 2012 til 2020

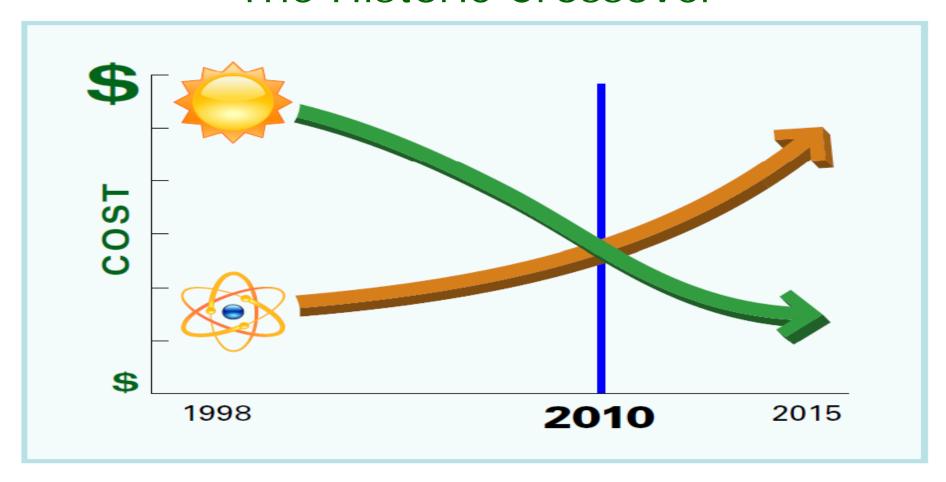
In Cent pro kWh (inflationsbereinigt, Basis 2010)



# Development of feed-in tariff for photovoltaic systems (up to 30 kW)

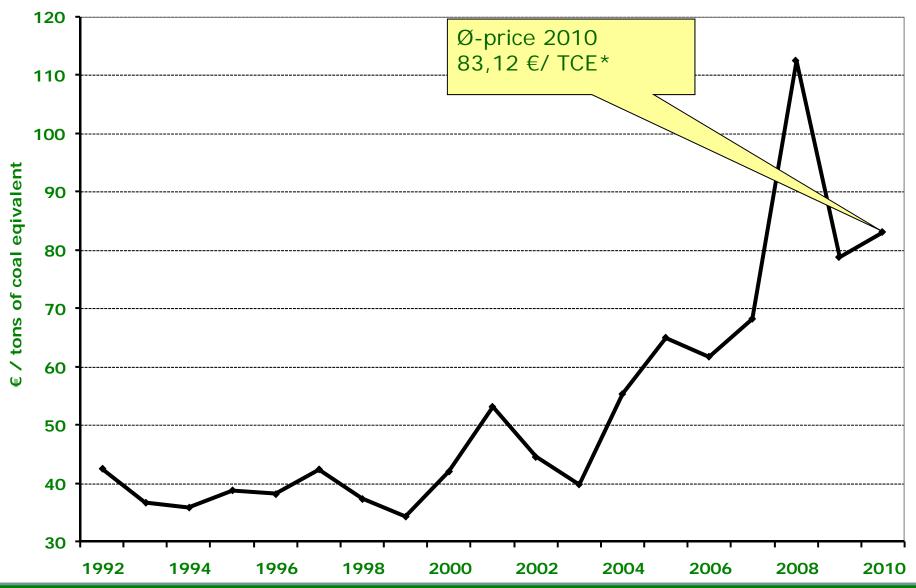


# Solar and Nuclear Costs - The Historic Crossover



Solar Energy is Now the Better Buy

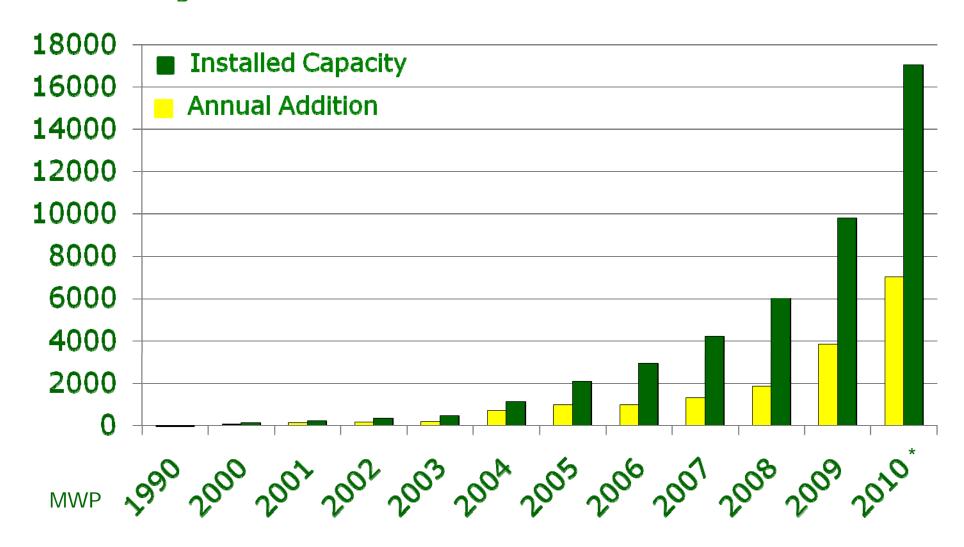
### Price Development for imported Hard Coal



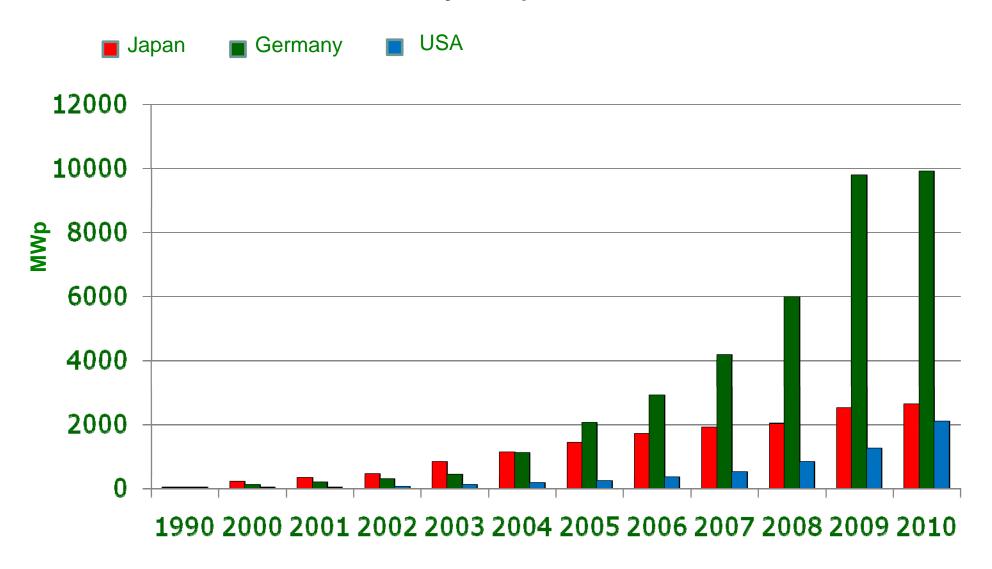
Source: http://www.bafa.de/bafa/de/energie/steinkohle/statistiken/index.html

\* 1st-3rd Quarter 2010

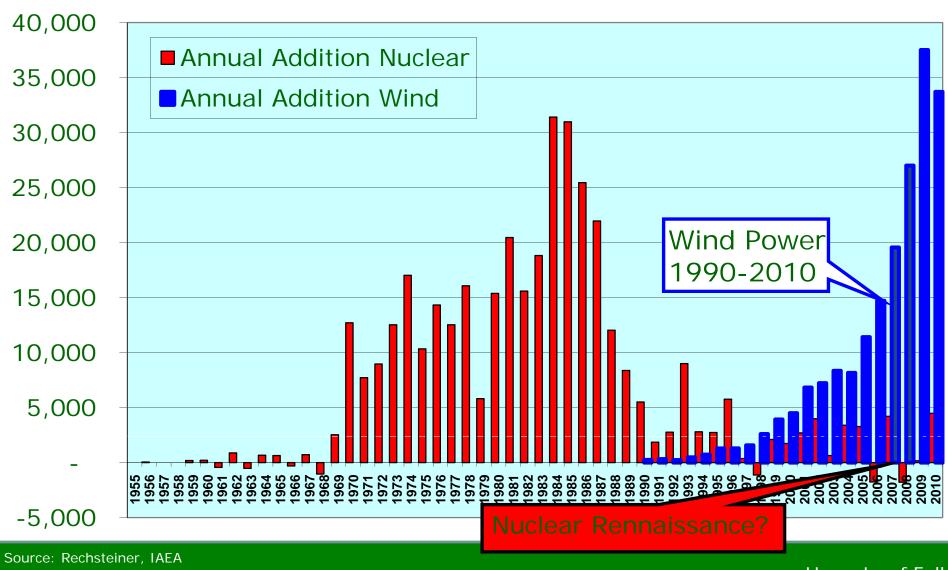
# Extension of grid connected solar energy in Germany



#### Photovoltaics – Germany, Japan and the USA



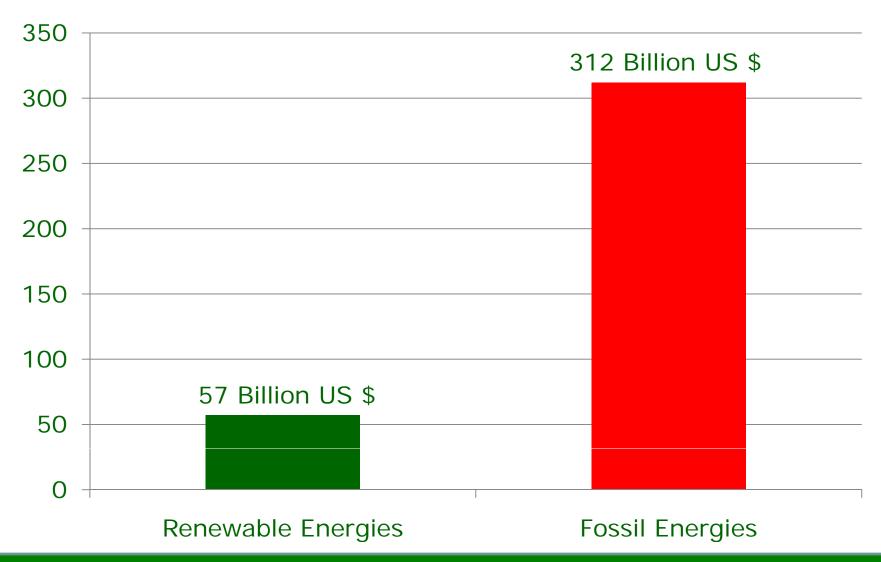
# Annual Additions of Nuclear and Wind Capacities in Megawatts



## Key Points of an effective Renewable Energy Sources Act

- Privileged grid access
- Feed-in tariff have to be sufficient for an economic operation
- Funding of the feed-in tariff via electricity rate
- No cap for Renewable Energies
- Garanteed peroid of renumeration
- Furthermore: no obstructions by a restrictive permission policy

#### Global Fossil and Renewable Subsidies 2009



Source: OECD/IEA/bearb. VDI nachrichten 45/10

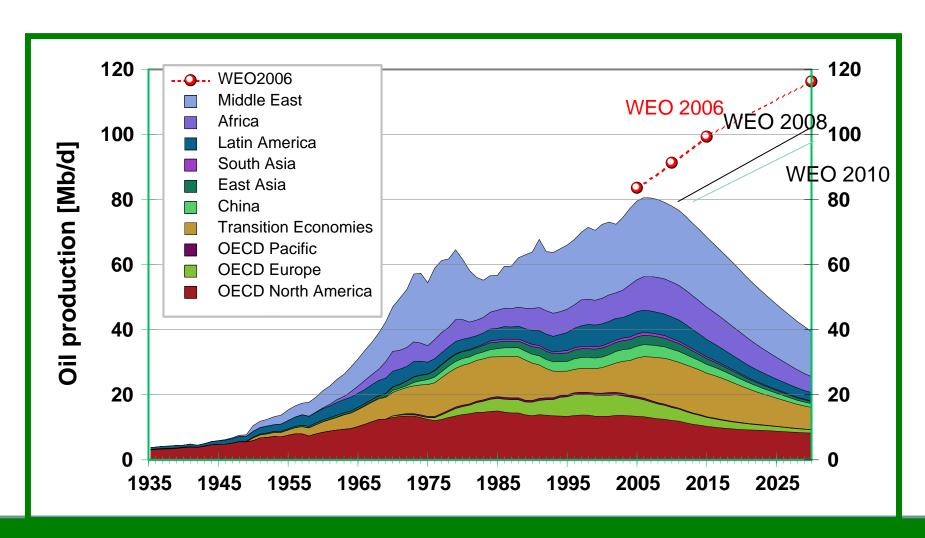
#### Oil Spill Disaster in the Gulf of Mexico



- Damage caused so far: US \$ 100 Bil.
   (estimated by the State of Louisiana)
- BP is willing to pay US \$ 20 Bil.



### Oil production – World Summary Energy Watch Group



### Study on Peak Oil by the German Military



"The occurrence of Peak Oil is (...) inevitable."

"This sub study illustrates the serious risk that a global phase of transformation, caused by a persistent scarcity of resources, will not be resolved without tensions in security policy."

### Global Warming

More often and more powerful: Aridity and Forest Fires; Floods and Storms





# The only imperative for climate protection

# Cooling down the earth

It's possible!

# Climate Issues and Peak Oil Can Only Be Solved By Two Combined Strategies:

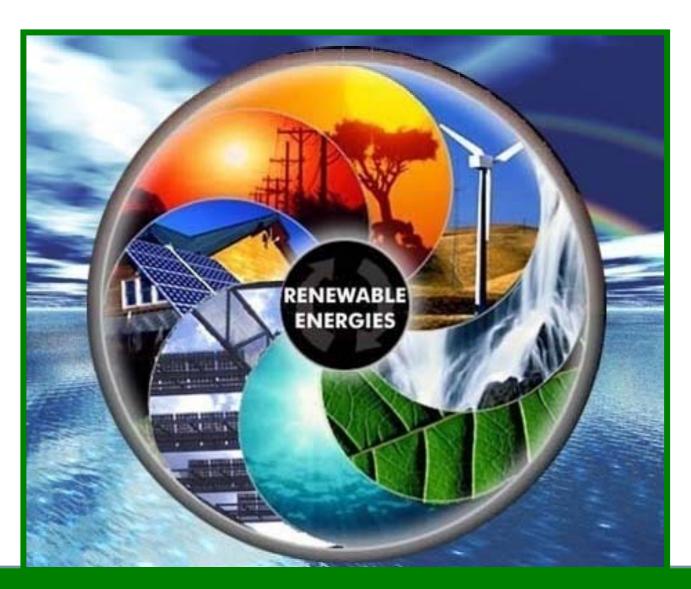
- Stop greenhouse gas emission (not only a reduction of emissions)
- promote renewable technologies
- completely cancel: use of fossil and nuclear energy
- 2. Take out carbon from atmosphere
- convert plants to humus soil (hydrothermal carbonisation)
- reforesting big areas
- organic farming

The Target must be: 330 ppm CO<sub>2</sub>

# A new Alliance for climate protection Finance industry (political actor and financer)

- Make money with climate protection and not climate pollution
- Switch energy investment from fossil/nuclear to renewables
- Promote for political strategies
- You can join this new Alliance

# Tomorrow's Energy Production



# Solarthermal Powersystems



Hans-Josef Fell www.hans-josef-fell.de

# Solar Cooling with Parabol Channel Collectors on a big Turkish Hotel



# Solar Car (Twike) in front of Solar Park



# Thank you very much for your Attention!

www.hans-josef-fell.de

#### YAHOO! NEWS

# Renewable energy to lower costs, boost economy — German official



GMANews - Fri, Jun 3, 2011

Investments in the production of renewable energy may not only drive down skyrocketing electricity costs but may boost the economy as well, according to a visiting German parliament member.

During the first Philippine Solar Photovoltaic Summit held Thrusday at the SMX Convention Center in Pasay City, Hans-Josef Fell, author of the German renewable energy (RE) law, underscored renewable energy's vital function for the economy.

"Renewabe energies in Germany have gone through an astonishing industrial expansion in the past decade. [As much as] 300,000 jobs were created in the renewable energy sector, 120,000 of it from the solar sector alone," he said in notes released Friday by the Philippine Solar Power Alliance (PSPA).

Fell said investments in conventional energy sources are twice as expensive compared with those in renewable energy sources.

"Investment in renewable energy is about 100 trillion dollars, but the fuel cost which we could avoid in 20 years would amount to about 200 trillion dollars," he said.

"You see, it is cheaper to go into renewable [energy], if only to avoid the fuel costs. But then we also avoid external costs, such as climate change," he added.

Should the current growth rates stay on track, Germany will be able to create about 50 percent of its electricity from renewable energy by 2020, and 100 percent by 2030, he said.

Germany recently said it will be shutting down its nuclear reactors by 2020.

"Our experience in Germany shows that protecting the climate by using renewable energy is not a burden but a stimulus to the economy," Fell said.

#### **Encouraging investments**

But for investments in the renewable energy sector to pour in, Fell emphasized that a good feed-in tariff (FIT) law must be in place.

Feed-in tariff is a subsidy governments give renewable energy producers to offer their electricity at above-market rates.

"Electricity price is rising rapidly because of the scarcity of resources (for conventional energy)," he stressed. "When the Philippines goes into a strategy with more renewable energy sources, it can become more competitive over other countries because of the rising fuel costs it has avoided."

Fell cited a report by the Duke University which says that in 20 years the cost of electricity from renewable sources — after overcoming financial cost — is only about 0.5 euro cents per kilowatt-hour (kWh).

In contrast, the price for nuclear power is up to 5 euro cents per kWh.

In the Philippine market, the current price of electricity is set by the Electric Power Industry Reform (EPIRA) Act of 2001, said Tetchi Capellan, president of the PSPA.

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"But EPIRA and the distortions it is addressing does not take into consideration what the Renewable Energy Law is trying to put in place," she said.

#### **Profitable producers**

For a feed-in tariff to be effective, Fell said it is essential that compensation for renewable energy producers is profitable.

"The duration of the compensation has to be at least 15 to 20 years to make it worthwhile, and a privileged grid access for the renewables has to be guaranteed," he said.

Government must pour in more investments to strengthen the grid and to expand electricity storage systems, he added.

Fell likewise said that in order for government to encourage more investments in renewable energy, it must cancel subsidies for producers of conventional energy.

"Subsidies create more debt in the public budget," he pointed out. "If you cancel [these] subsidies, then renewable energy would be competitive very, very fast." — **VS, GMA News** 

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#### Philippines urged to stand firm amid expensive start-up costs

By: Abigail L. Ho
Philippine Daily Inquirer
9:08 pm | Friday, June 3rd, 2011

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Instead of complaining about an additional burden, the higher power rates that will result from the introduction of new renewable energy (RE) projects into the power mix should be treated as an investment that will generate additional benefits and jobs for the country over the long term.

Hans-Josef Fell, a member of the German Parliament and a key architect of Germany's feed-in tariff (FIT) scheme, said getting more RE into the power mix would ease the country's dependence on coal and oil, which were both predicted to become more scarce and, effectively, more expensive in coming years.

In Germany's case, he said the introduction of FIT rates cost an additional burden of 8.2 billion euros a year on all power users. Having more RE in the mix, however, also allowed Germany to avoid 7.4 billion euros worth of fossil fuel imports, as well as 15.4 billion euros in external costs associated with such imports.

Also, the 26 billion euros worth of new RE projects generated thousands of jobs: from just 30,000 in 1998 to more than 500,000 jobs last year, he said.

"We didn't really suffer as a country because of the additional costs. The German economy actually became more competitive when it started using more RE," he said. "We don't really feel the rising prices in the conventional energy sector because we're using more RE. If the

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Philippines goes into RE, it will become more competitive and the country will no longer have to depend too much on expensive oil and coal."

Businesses, consumers, and even the Department of Trade and Industry, had all expressed apprehension over the impending imposition of an additional charge related to RE.

Unlike traditional power sources, the Renewable Energy Act of 2008 provided that a FIT system be put in place for RE project developers.

This scheme assures RE developers of future cash flows, as electricity end-users will be charged fixed amounts to cover the production of energy from renewable sources. With this in place, utilities can spread the cost of clean power among its customers.

The FIT rules are expected to provide an incentive for investors to go into RE development and production, as the mechanism serves as an assurance of stable pricing for energy from renewable sources.

The applicable FITs are based on installation targets for each technology and the timeframes for such installations to be completed. FITs can also be differentiated by means of plant size and whether the plants' output is dispatched during peak or off-peak periods.

Payment for the use of clean energy will come from a uniform per-kilowatt-hour charge, dubbed Feed-in Tariff Allowance (FIT-All), which will be collected from all electricity end-users.

Tags: Business, Department of Trade and Industry, DTI, electricity, Feed-in tariff (FIT) scheme, FIT system, Hans-Josef Fell, Power rates, renewable energy, Renewable Energy Act of 2008

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May 20, 2011

#### Summit to tackle Philippines as solar energy hub

A GATHERING OF solar energy stakeholders next month will discuss the possibility of making the Philippines a solar hub in the region.

The first Philippine Solar Photovoltaic Summit on June 1 to 3, is expected to provide insights to about 10,000 attendees.

"We plan to reach as many audiences as possible on the potential of the technology... [particularly] solar manufacturers because we believe the summit is the first step towards projecting the country as a solar hub in Southeast Asia," Tetchi Cruz- Capellan, a co-convenor, said in an interview with reporters.

Ms. Capellan said Hans-Josef Fell, one of the authors of Germany's Renewable Energy Law, will give a keynote speech.

"We can learn from the German experience and the pitfalls they may have faced in implementing the feed-in tariff," she said.

Feed-in tariff is a guaranteed payment to renewable energy investors through a universal charge.

The National Renewable Energy Board recently submitted its recommendations for feed-in tariff to the Energy Regulatory Commission for approval.

The summit will be held in line with the annual summit of the Semiconductor and Electronics Industries of the Philippines, Inc. -- E. N. J. David

**Article location :** http://www.bworldonline.com/content.php?title=Summit to tackle Philippines as solar energy hub &id=31713

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