

Supply Dynamics in the PV Industry

OR

WHAT THE HECK IS GOING ON WITH PANEL SUPPLY?!

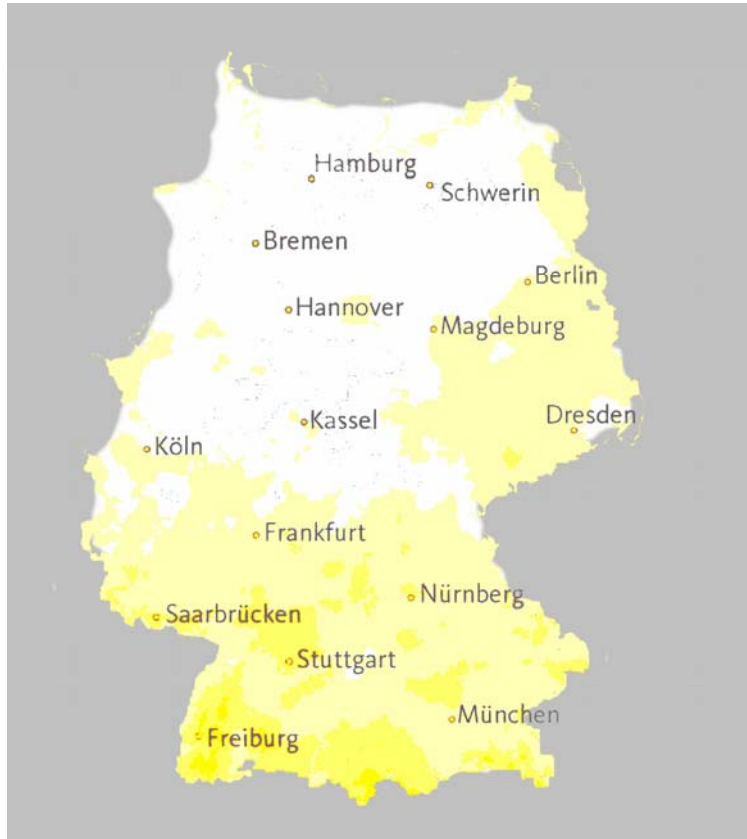
May 19, 2010



Jeff Wolfe, CEO
Paul Coughlin, Sr VP



Germany's FiT



- Half of world market
- Priced in Euros
- Declines annually
- Strong solar lobby
- Planned mid year decline
- Urgency to install
- Rich market for all



Euro Influence

- Foreign exchange rates matter
- Rate of change of exchange rates matter
- Macro economics, not solar, control exchange rates


American Dollars to 1 EUR ([invert, data](#))



<u>120 days</u>	latest (May 14)	lowest (May 14)	highest (Dec 3)
	1.2492	1.2492	1.512

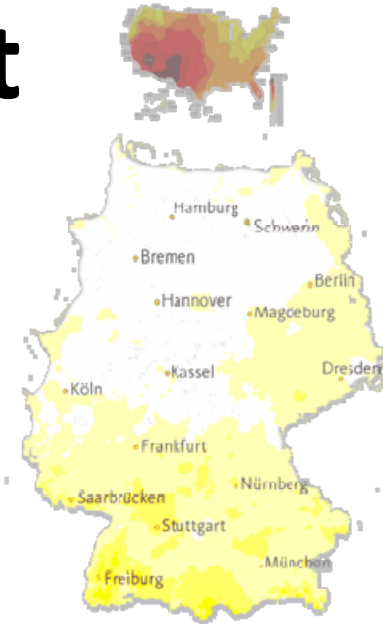
<http://www.x-rates.com/d/USD/EUR/graph120.html>

Hedging

- PV Mfrs make \$ on PV
 - Exposed to currencies
 - Hedge quarterly
 - Change w/in quarter is negated
- 



US Market



Weak Dollar

- More profitable to sell in Europe than US

Fragmented Policy

Weak Financing

Combine with market size → little pull to US

- Manufacturers look to move large volumes quickly
 - That is NOT the US market, due to policy & regulatory environment

groSolar active in Federal & State policy



Module Supply

So...why don't we have enough modules?

- Markets
 - Keep US happy → 10's of MW
 - Keep Europe happy → 100's of MW
- Money
 - Reliable incentives → reliable payments





Who is at Fault?

groSolar?

Manufacturers?

Large banks?

Customers?





Business Actions

- What does this mean to me/my business?
 - The real questions are:
 - What should I be doing today? and...
 - How do I prepare my business for this





Business Actions

- Keep selling
- Keep your reputation in tack - Communicate to your customers frequently and efficiently.
- Share some of the information we're sharing with you today with your customers.
- Begin installation on materials you can get
 - Pre-rack or wire projects, etc.
 - Get all paperwork 100%





Business Actions

- How do I sell when I don't know what I'm going to get?
- Should I be placing orders now on sold projects?



The Future

- When does the market change again?
- How does it change next time?
- When will the market be stable and predictable long term?



The Future

The Vice President of the European Photovoltaic Industry Association (EPIA), Winfried Hoffmann, claims that "photovoltaic energy could easily exceed the overall target of 20 GW set for renewables in the Mediterranean Solar Plan (MSP), and may even reach 100 GW if spread across the vast MENA (Middle East and Africa) region".



- **Subject:** What's with Brand "Y"?
- "Without any word, they have stopped taking orders.! Not only could they not fulfill an immediate need, they refused to even take a pretty nice order for future delivery.?????"
- "Who is still getting Brand Y? What's the deal.? Are they dumping the small accounts?"
- "If you are still doing business with Brand Y, what size orders are you placing.? ...just respond as small , medium or large."



- “Just trying to figure out where to go from here. Like I'm looking for a supplier who treats smaller shops with some respect. My salesperson at Brand Y is very upset being forced to **refuse orders.**”
- “Every supplier I know of is dry on these. Brand “X” won't be able to ship until October as of right now. I heard they are all going to the Czech Rep.”



Sell

Negatives

- Modules < desired
- Prices flat or up
- System price stability

Positives

- Growing market
- Demand > Supply
- System price stability
- Supply grows rapidly
- Relationships matter





Thank You

Paul.Coughlin@groSolar.com

www.groSolar.com

We will email you after the webinar with a link to the presentation and updates about the PV module market.

