



PV Energy Storage Workshop

EuPD Research, 2016

Background (1/3)

PV Energy Storage Workshop

Since 2013, EuPD Research has been surveying the global PV energy storage markets. Therefore, various (economical) calculations were made and numerous interviews conducted with important market intermediaries, such as manufacturers and installers. These insights were used in all reports and studies which have been published since.

Now companies involved in PV and energy storage have the opportunity to design their own research with EuPD Research's brand new "PV Energy Storage Workshop". Here our customers can chose from various modules and pick the topics most essential to their own business development.

On the following pages we will explain and describe EuPD Research's current findings and highlight the different aspects you may chose from to shape your own workshop. The benefits of these workshops are a) you decide about the content and b) an on-site discussion will further increase the value of the research results.

Questions answered:

- ⇒ How have and will the global storage markets develop/ed and which economical potentials do they promise?
- ⇒ Who are the current players in the markets and how have and will the prices evolve/d?
- ⇒ How do the most important market intermediaries, the installers, judge the potential of energy storage?
- ⇒ What are the reasons why end customers purchase energy storage and, what are the reasons why they may not?
- ⇒ Which product features are most important to secure success in the markets?
- ⇒ Which manufacturers are most known and what associations are made with the brands?

Background (2/3)

The PV Energy Storage Workshop is based on extensive research and various studies, such as:

Installer Analysis

- PV InstallerMonitor (DE, UK, IT, NL, AT, CH, USA, AUS)
- European PV Storage Market Insights
- Surveys amongst installers regarding buying process, procurement channels, brand choice and satisfaction concerning PV storage



End Customer Analysis

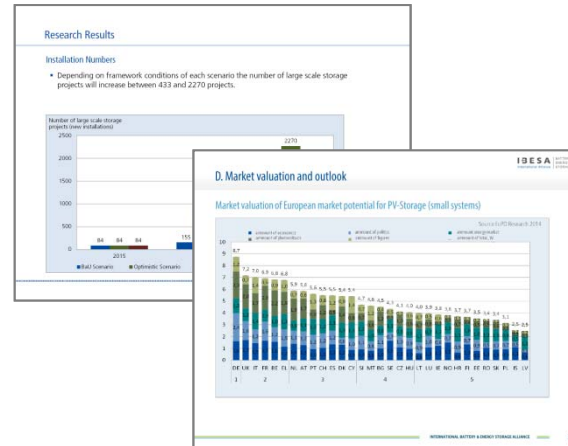
- EndcustomerMonitor
- Survey amongst PV system-owners and planners regarding the buying process for PV storage systems, background and buying motivation as well as brand awareness and choice
- Endcustomer Survey Photovoltaic
- Survey amongst home-owners regarding reasons against deciding to purchase PV and energy storage



Background (3/3)

The PV Energy Storage Workshop is based on extensive research and various studies, such as:
Market Analysis/ Market Models

- **Market Analyses**
- Analysis of installed storage capacity, products and players within specific country markets
- **Potential Analyses**
- Evaluation of one or more markets regarding the potential for PV energy storage



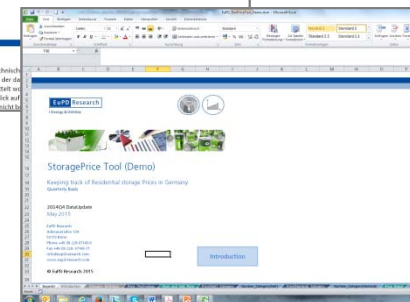
Economic Calculations

- **Economics Calculator PV-Storage**
- Depiction of energy and cash flows
- Business models (community- and swarm storage)



Price Analysis

- **Storage PriceTool**
- Excel-database with various evaluation options based on a quarterly price survey amongst German PV installers



Content

In the following the various modules are listed, from which you may choose for your very own workshop:

Module A: Market Overview PV Energy Storage Germany A

Module B: Market Overview PV Energy Storage Germany B

Module C: Market Overview PV Energy Storage Global Markets

Module D: Global Market Potential Overview

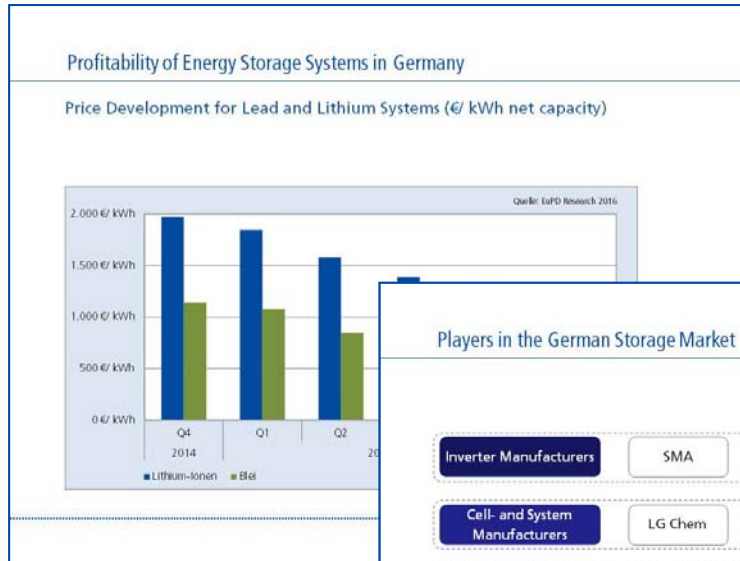
Module Overview

Module Overview (Excerpt of Contents)

Modul A: Market Overview PV Energy Storage Germany A

- Market Overview PV Energy Storage Germany
 - Market Data
 - Subsidy Programs
 - Technology Split
 - Market Shares
- Players, Products and Prices
 - Players along the Value Chain
 - Products and Size Ranges
 - Price Developments
- Profitability of PV Energy Storage in Germany
 - Influence Factors
 - Electricity Prices
- Market Prognosis Germany
 - New Installations
 - Retro-Fit

Sample Slides : Module A



Module Overview (Excerpt of Contents)

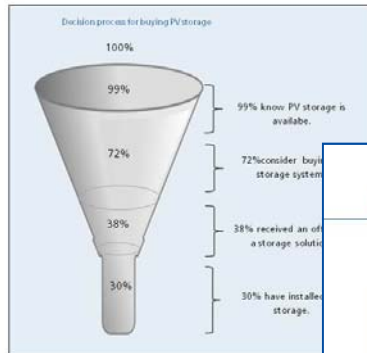
Modul B: Market Overview PV Energy Storage Germany B

- Buying Process for PV and Energy Storage (Endcustomers)
 - Buying Process
 - Role of the Installer
 - Buying Behaviour
- Brand Awareness for Energy Storage Manufacturers
 - Installers' Point-of-View
 - Endcustomers' Point-of-View
- Areas of Usage
 - Self-Consumption
 - Energy Market
 - Island Operation
 - Additional Usage (Emergency Power, Smart Home)
 - Post-FiT Era

Sample Slides : Module B

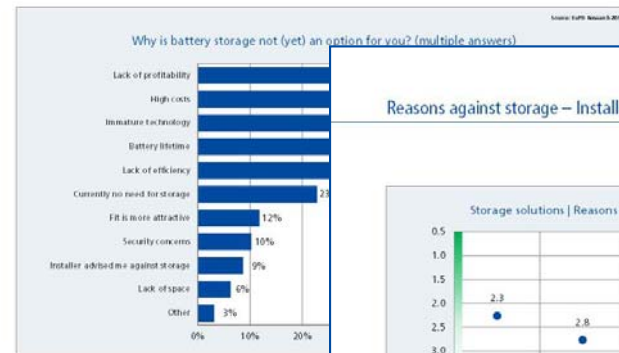
Buying Process End Customers

Despite increasing sales numbers there is still great potential for battery storage.

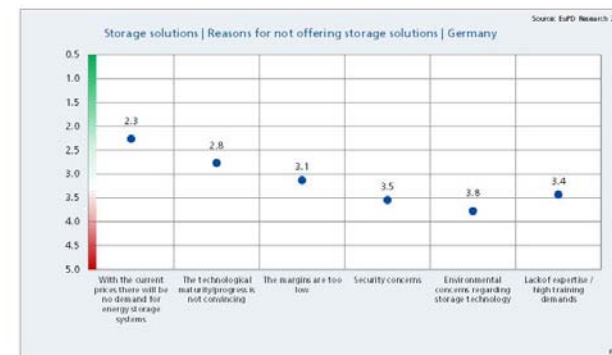


The buying funnel describes which steps towards buying a storage solution the respondents have taken and at which stage interested customers get stuck. Almost two thirds of the respondents (72%) considered buying PV storage (in the future). 38% received an offer for battery

Reasons against storage – End Customer



Reasons against storage – Installers

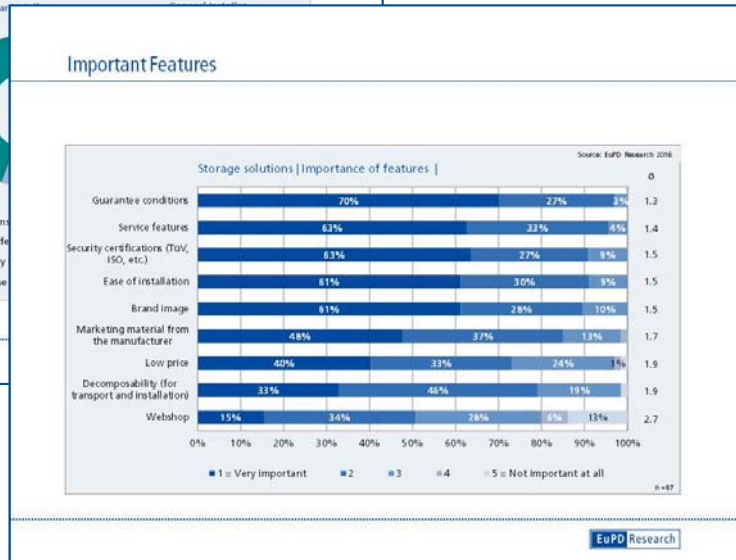
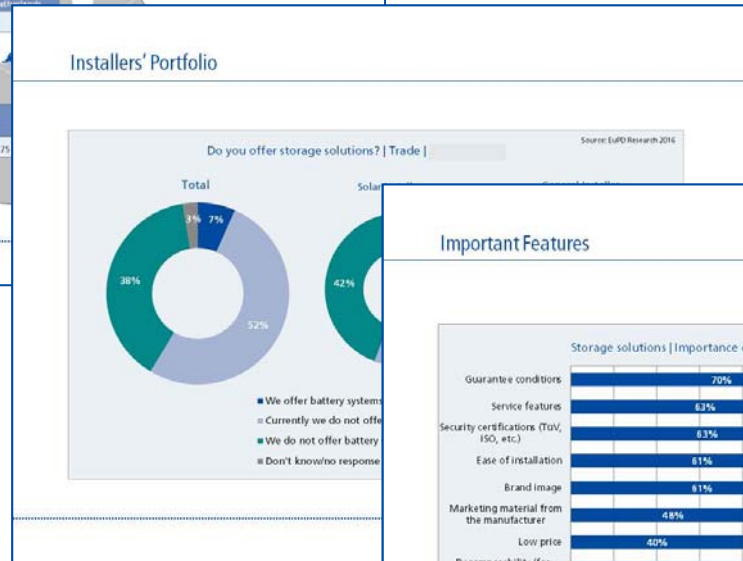
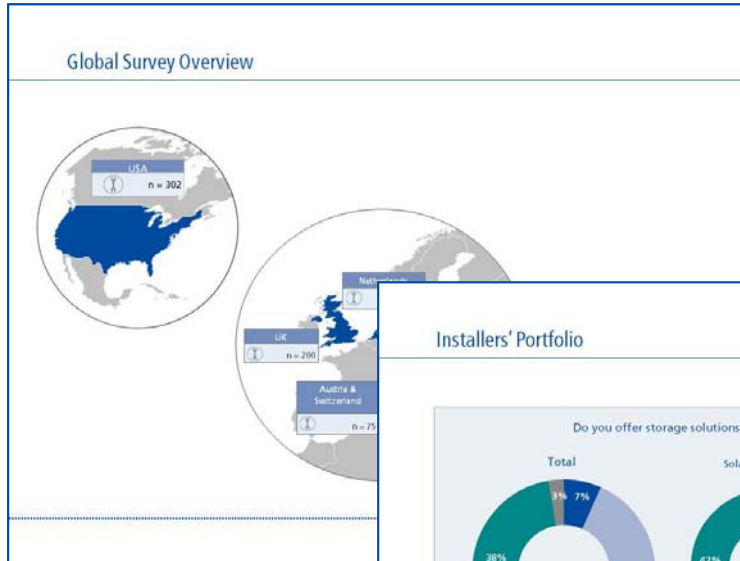


Module Overview (Excerpt of Contents)

Modul C: Market Overview PV Energy Storage Global Markets

- Areas of Usage for Home Storage
 - Self-Consumption
 - Electricity Price Arbitrage
 - Energy Market
 - Island Operation
 - Emergency Power
 - Capacity Tariffs
 - Direct Marketing
- Market Overview for various Country Markets
 - Installers' Point-of-View in UK, IT, NL, AT, CH, USA, AUS
- Overview of Energy Storage System Prices in Global Markets
 - UK, IT, NL, AT, CH, USA, AUS

Sample Slides : Module C

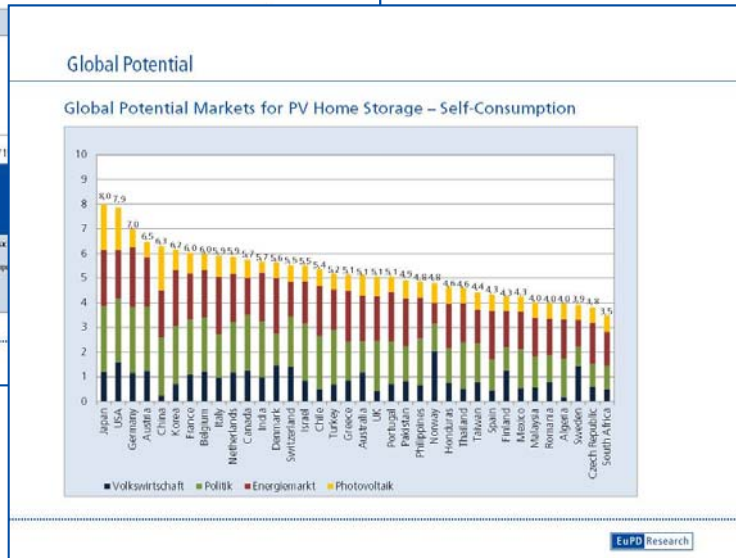
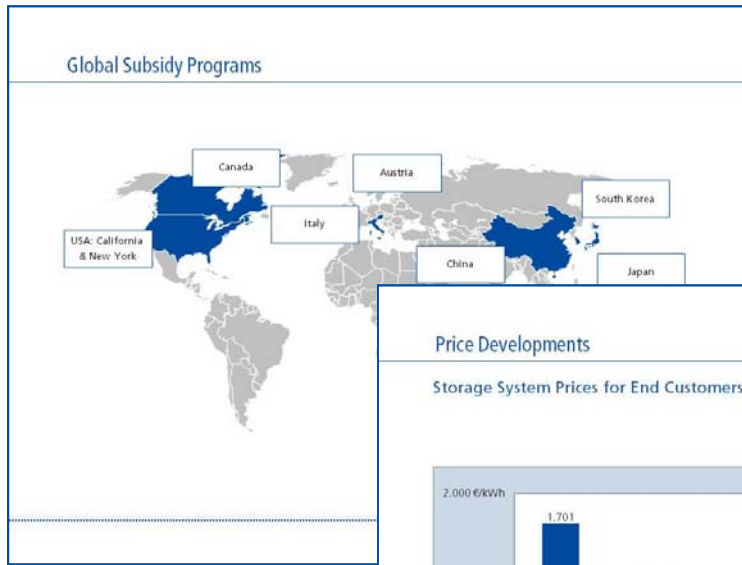


Module Overview (Excerpt of Contents)

Modul D: Global Market Potential Overview

- Market Factors and Indicators
 - Economy
 - Politics
 - Energy Market
 - Photovoltaics
- Potential Overview
 - Global View
 - Rankings
 - Details
- Overview over Global Subsidy Programs
 - USA (California, New York)
 - Canada
 - Italy
 - Austria (Vienna, Carinthia, Styria, Burgenland, Tirol)
 - Asia (South Korea, China, Japan)

Sample Slides : Module D



Module Overview (Excerpt of Contents)

Modul E: Individual Customer Demand

Here customers may state which other demands are currently at hand. EuPD Research will then calculate individual quotes, based on the research efforts.

Possible topics are:

- Countries
- Technologies
- Segments
- Competitive Analysis
- Business Cases

About Us

EuPD Research: The B2B Specialist for International Market Research



Exclusive Services

Satisfaction Analyses

Customer Insights Tests

Prices Analyses



Reports

EndCustomer Monitor

EU Installer Monitor

Sales Monitor



Certifications

Customer Satisfaction Seal

Top PV Supplier

Top Brand PV



EuPD Research: References (Extract)



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