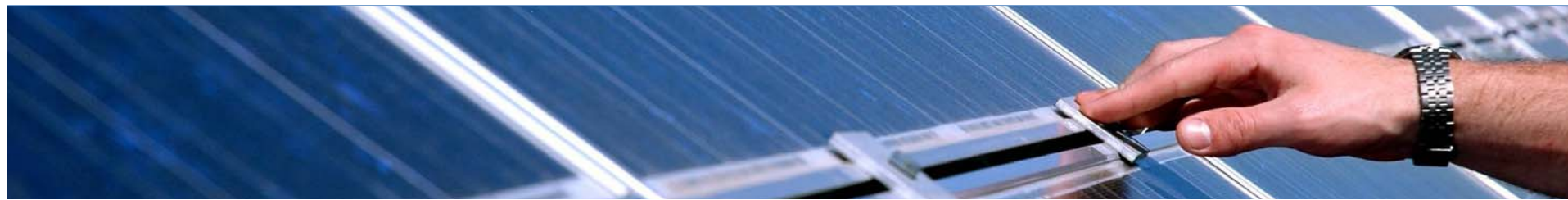




| International Solar



US InstallerMonitor[©] 2010

The Procurement Management of PV Installers in the USA

Proposal for a Primary Survey of Installers in California, Colorado, Florida,
New Jersey and New York

EuPD Research | Shared Services

0092-1-5-07-2

Agenda



1. The US InstallerMonitor® 2010 – at a Glance
2. Background
3. Contents of the Study
4. Research Design
5. Benefits of the Product for Your Company
6. Order Form
7. PV Research Management System® (PV RMS)
8. General Terms and Conditions of Business
9. About EuPD Research

Editorial

1. The US InstallerMonitor 2010 – at a Glance

Objective

To understand the downstream photovoltaic market in five key US states in terms of installer needs and preferences based on a primary survey of installers in California, Colorado, Florida, New Jersey and New York.

Value for Subscriber

This study will provide information on the business climate of the US PV industry, the supply strategy of PV installers, brand and technology preferences, as well as recommendations for the most effective business strategies with PV installers. Analysis of the current legal framework, market development, identification of promising application types and customer groups is also included.

Key Questions Answered

- What is the current business outlook for PV vendors and installers?
- Where do installers expect the highest potential? Which customer groups will show strong growth in 2010 and 2011, and what are their preferences?
- Which PV module and inverter brands do installers offer and which are the most significant?
- Which PV module brands do installers recommend?
- Do PV installers purchase directly from the manufacturer or from a distributor, and why?

Methodology

This study will be based on primary interviews with 311 PV installers in five key states. Additionally, qualitative interviews with major PV module manufacturers, distributors, industry experts and other strategic sources of data will be used.

Deliverables

- Market Analysis Study: A written, presentation-style report will provide qualitative remarks about the quantitative figures, graphs and tables, as well as a detailed analysis of the survey findings.
- Additional data details and an on-site presentation is available at a moderate additional cost.

Project Schedule

Project Start: May, 2010

Study Results Available: July, 2010

2. Background

Within the last years, the situation in US PV markets has changed profoundly: the number of market players in the PV business has increased significantly, new business models and customer segments have emerged. Since the financial crisis, the US administration has implemented many new financial incentives supporting the clean energy sector – including the PV industry. However, conditions for the development of the PV business largely depends on the highly diverse state energy policies and therefore – because of their attractive framework conditions, high renewable energy targets and preferable natural conditions – states like California, New Jersey, Colorado, New York and Florida boast a high potential for the expansion of PV. Competition has visibly strengthened in most of these states. Business players have already entered these new markets, built up production lines and started marketing their products.

Against this background, the “US InstallerMonitor 2010®” will analyze the current developments in selected US state markets from the solar installers’ perspective. Installers play an important role as intermediaries between the producers and their products, as well as the end customers. That is why they form the ideal target group for inquiries into developments on the sales market. The focus of the research project will be on the relationship between suppliers and purchasers. To be specific, the subject is an in-depth analysis of installers’ procurement management.

The research design is well established and highly successful: In the last four years EuPD Research has conducted similar shared service projects analyzing the German PV market and other top European PV markets.

EuPD Research expects significant new findings to emerge from this study regarding the web of relations in existing supply structures in the key US sales markets. We would like to invite you to purchase the “US InstallerMonitor® 2010” as a shared service.

3. Contents of the Study

Agenda – US InstallerMonitor 2010

Executive Summary

General Introduction

- I. Background
- II. Contents
- III. Theoretical Comments
- IV. Research Design
- V. Description of the Sample

Part I. Overview of the US Photovoltaic Market

- A. PV Framework Conditions in the US
- B. US Market Specifics
- C. Reaching Grid Parity
- D. PV Market Development in the US

Part II. – California

- A. Market Analysis
- B. Market Penetration: Supplier Positioning
- C. Installer Procurement Channels
- D. Brand Management: Awareness, Image, Satisfaction

Part III. – New Jersey

- A. Market Analysis
- B. Market Penetration: Supplier Positioning
- C. Installer Procurement Channels
- D. Brand Management: Awareness, Image, Satisfaction

Part IV. – Colorado

- A. Market Analysis
- B. Market Penetration: Supplier Positioning
- C. Installer Procurement Channels
- D. Brand Management: Awareness, Image, Satisfaction

Part V. – New York

- A. Market Analysis
- B. Market Penetration: Supplier Positioning
- C. Installer Procurement Channels
- D. Brand Management: Awareness, Image, Satisfaction

Part VI. – Florida

- A. Market Analysis
- B. Market Penetration: Supplier Positioning
- C. Installer Procurement Channels
- D. Brand Management: Awareness, Image, Satisfaction

Part VII. – State Comparison

- I. Introduction
- II. Comparison of Distribution Ranges
- III. Comparison of Brand Positioning
- IV. Comparison of Procurement Channels
- V. Evaluation of Installers Business Outlook
- VI. Summary

Part VIII. – Market Situation Flash 360|Consult

3. Contents of the Study

Analysis of the Key US PV Markets

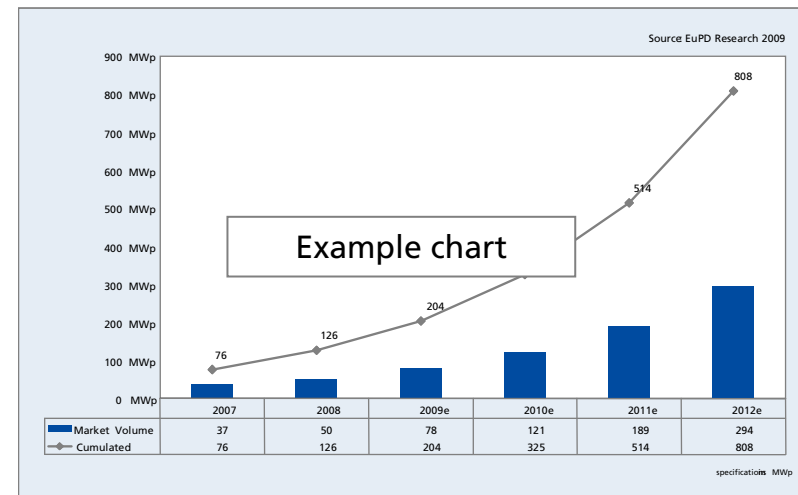
- Incentive framework of the five selected PV state markets
- Market development and market segmentation
- Identification of promising application types and customer groups
- Identification of drivers and hindrances in the markets
- Pricing situation and price development of PV modules
- List of the top downstream market players active in the analyzed state market
- Contact data of relevant regional institutions (associations, chambers of commerce, etc.)

Example: Incentive framework in each analyzed state

Solar radiation	• 1,300 – 1,900 kWh/m ² a (Germany: 1,000 – 150 kWh/m ²)
PV promotion (no security of investment: Ministry for the Economy are allowed to change the feed-in-tariff at any time)	2008 FIT amendment First five years • Systems <3.68 kW: 0.65 €/kWh After this a smaller payment for the next ten years (dependent on the installed capacity). Only small PV systems in combination with solar thermal systems (collectors have to be 2 m ²) will be favored by the government.
Installed capacity Source: EuPD Research 2008	Example chart • 2009e: 40 MW Installed • 2010e: 38 MW Cumulated 2007: 16 MW • 2011e: 35 MW

- For the Portuguese market, high growth rates were expected, though its development is partially hindered by bureaucracy. After speculations with grid-connection licenses, the feed in law and the allocation of licenses have been frozen until 2009. Projects with old licenses are still being implemented, such as the eleven MW plant in Serpa (connected in March 2007) and the 62 MW Moura plant that is in the pipeline.
- In November 2007, a new law for small PV plants (up to 3.68 kW) was passed. With it, amortization is possible within 6/7 years.
- Specifics: For 2008, ten MW were allowed; for every following year, 20 percent more. Simultaneously, the basic feed-in-tariff declines by about five percent for every ten MW installed. Size of the plants measured by nominal capacity of the inverter not modules, maximum size of the plant allowed is half the capacity of the connection point of the building. Only companies with at least one professional engineer and installer are allowed to install PV plants.

Example: PV market development of each analyzed state

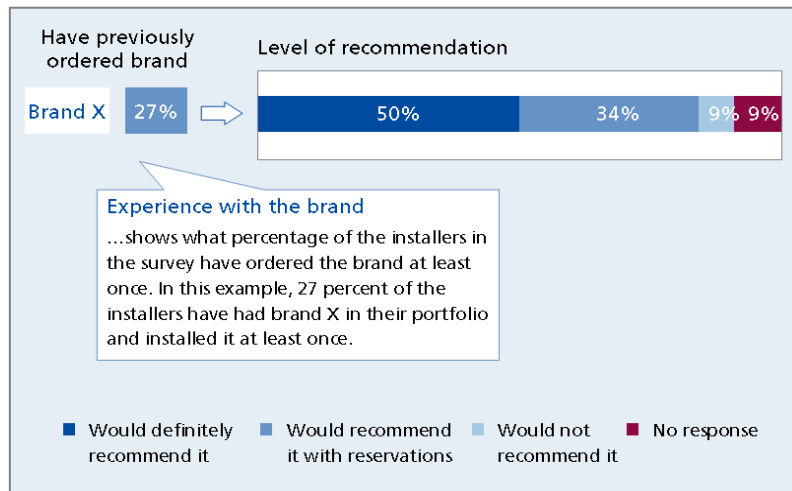


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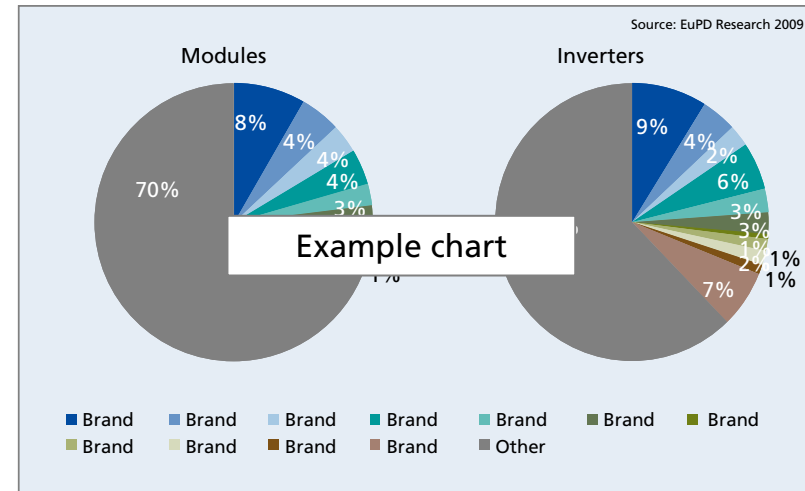
Brand Awareness of Top PV Manufactures and their Distribution Ranges

- Assessment of brand awareness and brand loyalty by means of purchase funnel analysis
- Distribution ranges of module and inverter suppliers and wholesalers in the analyzed state markets
- Positioning of suppliers in markets and segments
- Share of specific module technologies
- Product portfolio according to brands/technologies

Example: Brand Loyalty



Example: Distribution range of module and inverter

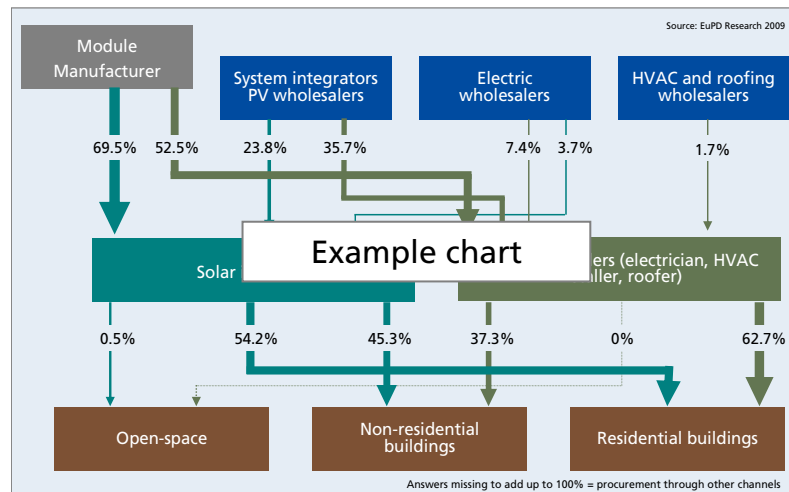


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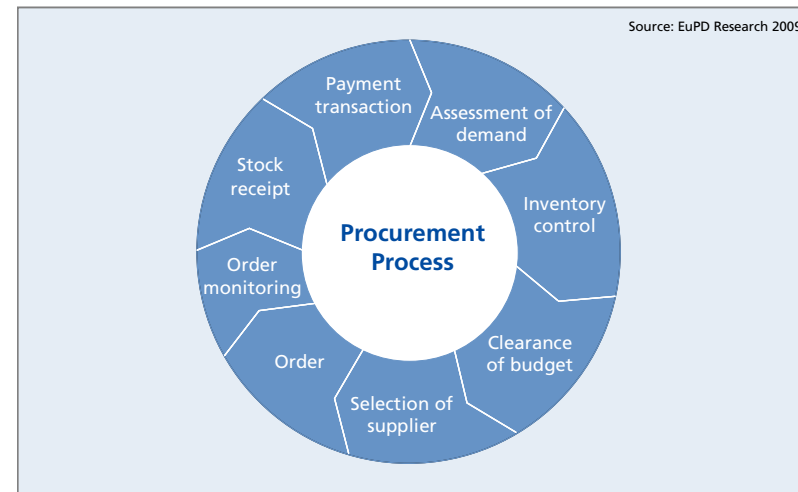
Analysis of Installers' Procurement Management

- Percentage share of procurement in total annual expenditures
- Contract and supply conditions
- Procurement strategies
- Procurement channels 2009-2010
- Purchase decision according to brands/technologies and justification of the choice of suppliers

Example: Procurement channels 2009-2010



Example: Procurement Process

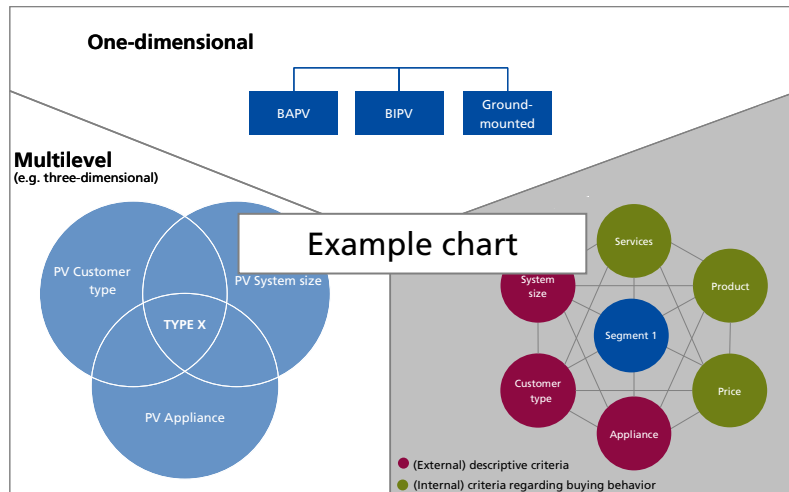


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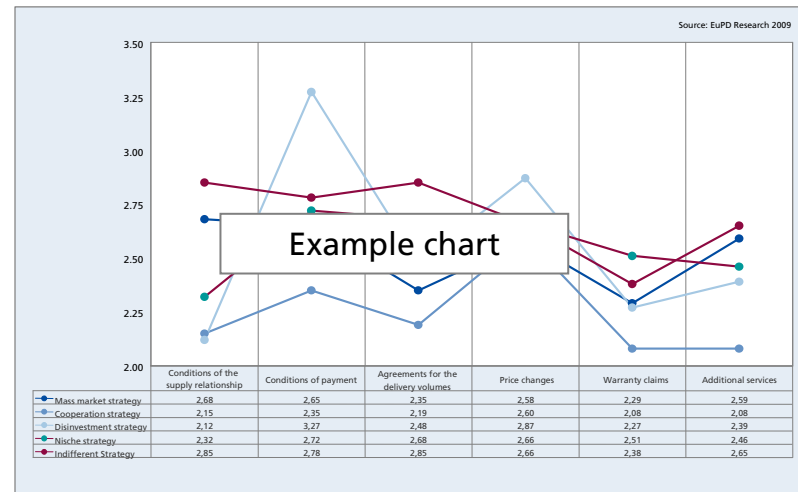
Supplier-customer Relationship between Producers and Installers

- Role of installers as market intermediaries for different segments
- Segmentation of specialized installers
- Potential business strategy: expansion to neighboring states or integration of other customer groups
- Satisfaction of installers with suppliers and their sales strategies

Example: Segmentation of installers

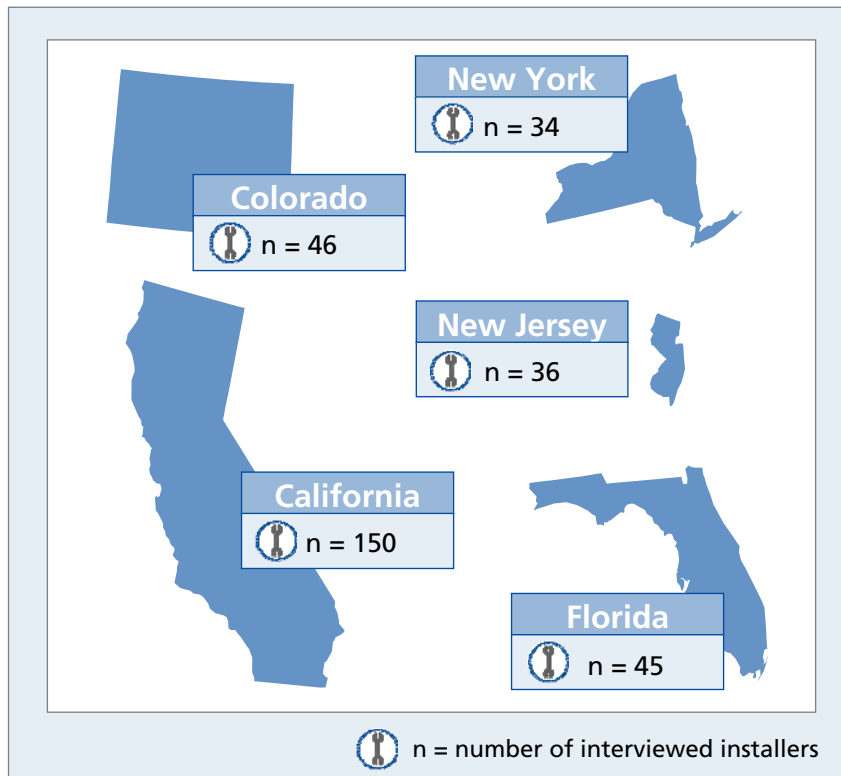


Example: Satisfaction with the terms of agreement for supply



4. Research Design

The target states for the survey were five key PV markets in the US: California, New Jersey, Colorado, New York and Florida. Around 79 percent of the total installed capacity in the US in 2009 was installed in these five states. The population from which the sample was taken was the ca. 6,000 installation companies active in the field of PV in those US states.



Survey

- Sample: a total of 311 interviews were carried out with PV installation companies
- Field time: May and June 2010
- Interview length: approx. 30 min

Analysis

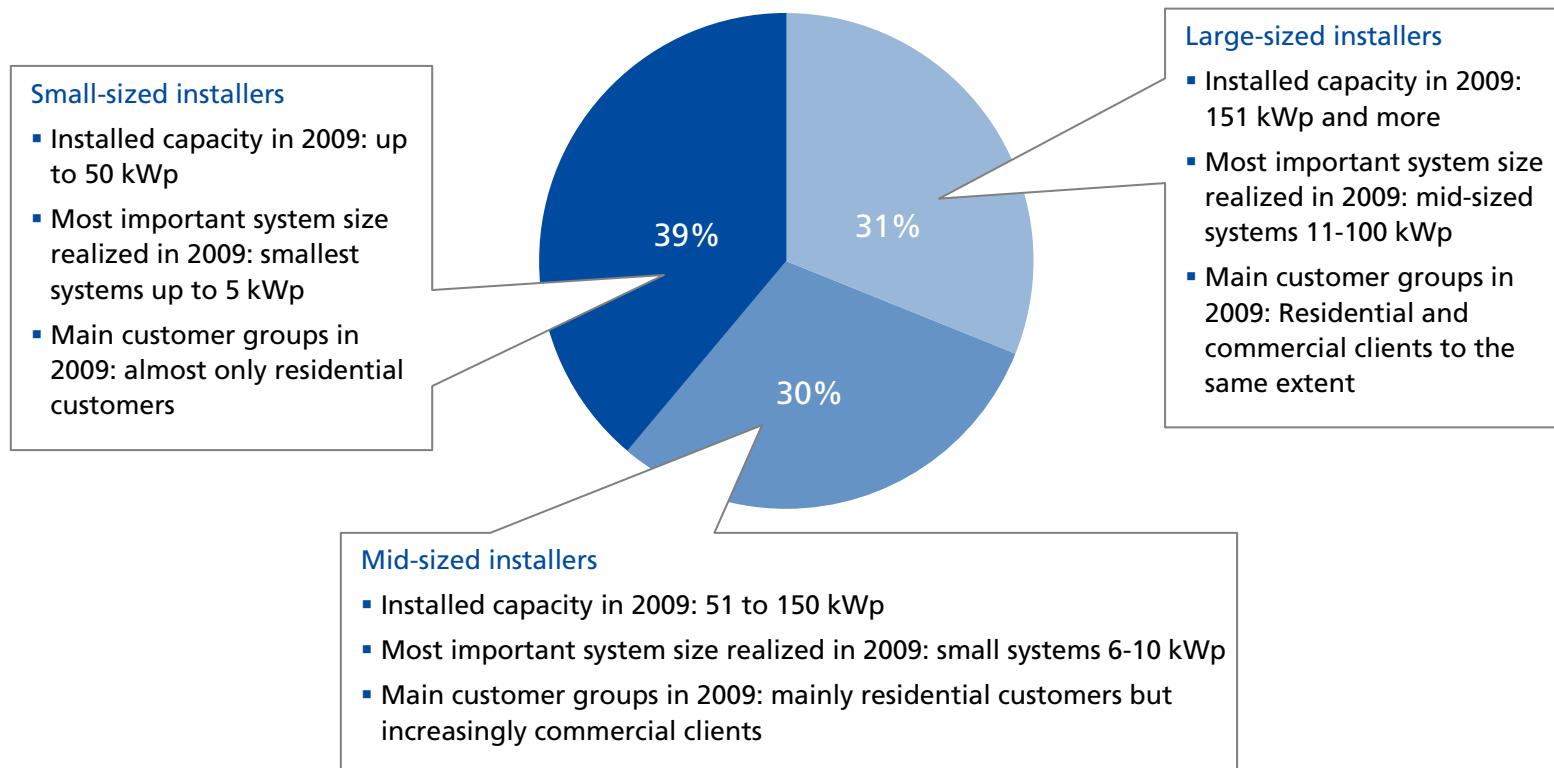
- Group-differentiated analysis (type of trade, size of company)
- Cluster analysis possible (after prior multi-variate correspondence analysis)
- Individual supplier analysis possible (for module or inverter brands if named more than 30 times by installers)

4. Description of the Sample

Clustering Approach

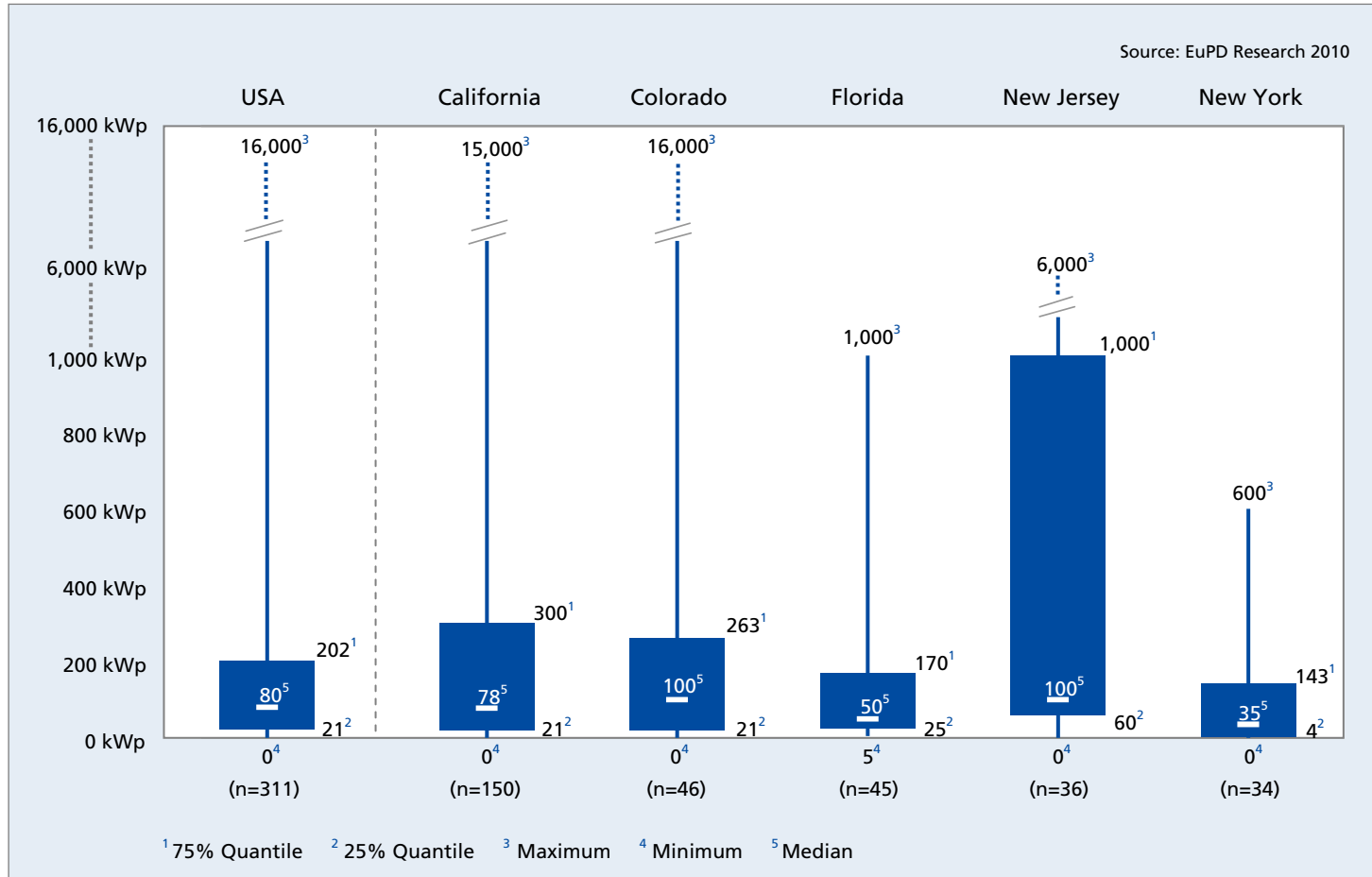
Differentiated and focused market penetration requires specific information on relevant target groups. In order to identify installer groups having similar characteristics, EuPD Research carried out a cluster analysis among the survey participants. The following criteria were used in order to identify the clusters step-by-step:

- 1. criteria: installed capacity in 2009
- 2. criteria: installed system size with highest share in 2009
- 3. criteria: customer group with the highest share in 2009



4. Description of the Sample

Installed capacity of the surveyed installers (2009)



The box plots displayed on the left show the PV capacity the surveyed companies claimed to have installed in 2009.

In all of the states, a wide range was observed. With 100 kWp, the highest median values were recorded in Colorado and New Jersey.

The maximum values of 15,000 and 16,000 kWp installation capacity can be explained by the fact that e.g. some large full-service solar power installers for residential PV systems from California and Colorado were included in the survey.

5. Benefits of the Product for Your Company

The “US InstallerMonitor 2010” will provide your company with decisive competitive advantages. Selected benefits enable you to...

- Gain an overview of the most important brands and suppliers from the point of view of the US installers.
- Discover and use detailed information about the procurement management of the installers.
- Understand what installers are looking for from systems, suppliers and manufacturers.
- Find out the optimal position for your company on the market to meet the installers’ requirements.

The product contains information about the following topics:*

Framework	■	□	□
Competitors	■	■	■
B2B Customers	■	■	■
End Customers	■	□	□
Product / Brand	■	■	■
Price	■	□	□
Distribution	■	■	■
Communication	■	■	□

* ■ □ □ some ■ ■ □ main topic ■ ■ ■ key focus □ □ □ (The product does not deal with the topic.)

The product deals with the following levels of the value chain:



6. Order Form – “US InstallerMonitor© 2010”

I would like to order (please mark):

- | | |
|---|--------------------------|
| <input type="checkbox"/> US InstallerMonitor© 2010 (English Version)* | Price: \$ 13,900 |
| <ul style="list-style-type: none">▪ Primary survey of PV installers (5 selected US states)▪ Analysis and interpretation▪ 1 printed annotated report, high quality binding | |
| <hr style="border-top: 1px dashed #000;"/> | |
| <input type="checkbox"/> Additional digital ePaper version in PV RMS** | Price: \$ 1,350 |
| Special features: searchable / individual pages and graphics downloadable | |
| <hr style="border-top: 1px dashed #000;"/> | |
| <input type="checkbox"/> Product Presentation*** | Price: \$ 1,350 |
| <input type="checkbox"/> Executive Level Presentation*** Individual preparation of content according to company focus | Price: \$ 3,300 |
| <hr style="border-top: 1px dashed #000;"/> | |
| <input type="checkbox"/> ___ Additional printed copies of the report | Price/copy: \$ 95 |

Fax +49 (0) 228-971 43-11 to the attention of Mr Florian Schmidt | Product Management

Name: _____	Phone: _____
Company: _____	Fax: _____
Position/Dept.: _____	E-mail: _____
Street: _____	Sales tax ID: _____
City/ zip code: _____	

* The basic version can only be purchased as a complete package; reductions of individual services are not possible.

** Please find more information on our PV RMS on the next page.

*** All prices excluding travel expenses.

I accept the terms and conditions of business (see page 16-17)

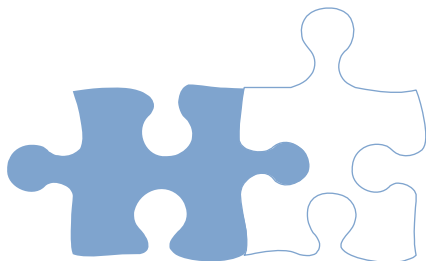
Date: _____

Signature: _____

7. PV Research Management System© (PV RMS) – Features

As mentioned on the page before, you may immediately work with licensed ePapers of your ordered reports integrated in EuPD Research's PV Research Management System (PV RMS) via three free accounts.*

PV RMS will allow you ...



- ✓ to have the report **immediately at hand** after completion
- ✓ **exclusive access** to the ePaper of the ordered Shared Service enabling you to...
 - ✓ download high resolution pages from the ePaper
 - ✓ immediately make use of the documents, e.g. in presentations
 - ✓ efficiently make use of studies in further processes
- ✓ to manage your information **from anywhere in the world**
- ✓ to store all relevant EuPD Research studies – and your company's own research – **in one place**
- ✓ to **communicate easier** with your company's worldwide subsidiaries
- ✓ to train your new employees more **time-efficient** and **more effective** with the help of centralized information management

* Further accounts on request.

8. General Terms and Conditions of Business I

General terms and conditions of business

1. Scope

1.1 All contracts between EuPD Research – a registered brand of Hoehner Research and Consulting Group GmbH (hereafter HRCG GmbH) - and the customer shall be subject to the following terms and conditions only. The customer's terms and conditions of business shall not be applicable and shall not put HRCG GmbH under any obligation to comply unless HRCG GmbH explicitly gives written acknowledgment and acceptance of such conditions.

1.2 Offers are aimed exclusively at commercial clients, that is, companies according to Article 14 BGB (German Civil Code). Private customers, that is, customers according to Article 13 BGB, are not permitted to place legally binding orders based on the aforementioned. Interested private customers should contact EuPD Research by telephone for information on how to place a non-commercial order. Furthermore, the legal right to return items as stated in consumer protection law does not apply to orders placed by commercial clients but does apply to orders placed by private customers.

2. Offer and ordering process

2.1 The presentation of the products together with the order form does not constitute a legally binding offer. Offers are subject to the written confirmation of HRCG GmbH. They are designated for the internal use of the customer only.

2.2 The purchaser places a binding offer for the product of choice when all relevant purchase details have been given and the general terms and conditions of business accepted. This will be confirmed immediately by email or fax sent to the address given by the customer. The contract to purchase between the purchaser and HRCG GmbH is valid from when the order is confirmed, or, the products are delivered either by mail or download.

3. Scope of Services, Remuneration and Prices

3.1 Services offered include but are not limited to the following:

- a. Multi-Client-Services: client-independent studies for an indefinite number of customers.
- b. Shared-Services: commissioned study on behalf of a limited number of customers for the exclusive purchase of those customers.
- c. Exclusive-Services: assignments carried out on behalf of a single customer who will have the exclusive license to use the product but only for an individually negotiated period of time. This exclusive license will be for a period no longer than 12 months. After a period of no longer than 12 months it will become a non-exclusive license.

3.2 The prices are net prices in Euros. They do not include sales tax/VAT or delivery costs. Sales tax/VAT will be added to the net costs according to the legally defined percentage. The prices valid at the time of ordering are binding.

3.3 Travel expenses incurred for HRCG GmbH/ EuPD Research workshops either provided in combination with studies or booked separately are not included in the scope of the offer. Prices have to be paid separately by the customer. This does not apply if it is explicitly agreed that the workshop or the resulting travel expenses for the workshop are part of the negotiated contract and thus do not have to be paid separately.

3.4 Should circumstances arise beyond the control of HRCG GmbH which impose a temporary hindrance on the provision of services, then services and delivery appointments agreed on will be extended. Customers will be informed of any such event or other delay immediately

4. Terms of Payment and delivery

4.1 Payment is to be made to the amount and method stated in the contract. Any addition and/ or aberration require the written confirmation of HRCG GmbH in order to be effective

4.2 Payment is generally to be made upon receipt of invoice. The products will be shipped as soon as full payment has been made to the account of HRCG GmbH. The terms and conditions for payment and delivery of Shared- Services and Exclusive-Services are stipulated in the binding offer.

4.3 Delivery costs depend on the quantity of products ordered, their destination as well as type of delivery. There are no delivery costs for products which can be downloaded. The customer accepts that any fees or charges owed for customs or non-EU addresses will not be paid by HRCG GmbH nor is HRCG GmbH liable for them.

8. General Terms and Conditions of Business II

4.4 The method of delivery, route and company employed to deliver will be chosen by HRCG GmbH at their sole discretion. Once the purchaser has taken delivery of the item from the delivery service, the purchaser is responsible for the item. The company responsible for delivery is to be made aware of any damage sustained in transit immediately. These damages are also to be reported to HRCG GmbH immediately. Part deliveries are permissible where appropriate.

4.5 HRCG GmbH/ EuPD Research retains ownership of all goods and all licensing rights pertaining to the usage of data files as well as intellectual property until payment of invoice has been made in full. Intellectual property rights are lawfully retained by the author.

4.6 The purchaser is only able to offset counter claims if they are acknowledged by law, uncontested, or prior written consent has been granted by HRCG GmbH. Customers are only have the right of retention if counterclaims are based on the same contractual relationship. The customer is prohibited from transferring any claims of payment against HRCG GmbH to a third party.

5 .Copyright and licenses

5.1 The products and their intellectual property are protected by copyright. It is only possible to purchase a license to use the product and not the product itself or its content. The author/ creator remains the owner of intellectual property..

5.2 The customer is granted a non-transferable and non-exclusive license to use the product and the results and content in the product (with the exception of Exclusive-Services) for personal use respectively for use within the company that placed the order.

5.4 Permission to use the licensed product in the national and international affiliates of the company is subject to the written approval of HRCG GmbH.

5.5 Any use of the product not explicitly permitted under copyright law is prohibited without the prior written consent of HRCG GmbH as the licensor and/or the written consent of the author. This includes but is not limited to copying, distributing, publishing, translating, saving, processing and reproducing the work in databases. Non-compliance will be prosecuted

6. Liability

6.1 The products were prepared with the utmost care, using professional methodologies and taking relevant legislation into account with the aim of assuring the best possible accuracy of the studies and their results. The data contained in this product is based on surveys of sample populations, conducted using standard statistical methods to the best of our knowledge. As such the study is subject to a certain statistical error rate and is based exclusively on the facts which were available at the time of the survey. Due to the aforementioned, no guarantee can be given for the accuracy and completeness of the studies and the data made available in them.

6.2 The studies contain specific information, but explicitly do not contain any definite recommendations on investments or actions to be taken. Should the user, having taken the above mentioned into consideration, choose to use the studies to support their decision making process, HRCG GmbH shall not assume liability for the economic success of such investments or actions.

7. Jurisdiction

The court of jurisdiction is Bonn. German law will be applied in all legal proceedings.

8. Severability Clause

Should any of these terms and conditions, either in full or in part, be invalid or incomplete, it shall not affect the validity of the other terms and conditions. In that case, the terms and conditions, as stated in German law come into effect.

9. About EuPD Research

a.) Company Profile

EuPD Research is an international market research institute headquartered in Bonn, Germany. In addition to activities in the finance and health sector, EuPD Research is specialized in the energy sector with particular focus on PV. With our qualified multilingual interviewer center and profound market knowledge combined with methodological professionalism, we offer our clients in Germany, Europe, Asia and America the entire range of qualitative and quantitative market research. Our areas of expertise include:

- Market analyses
- Situation analyses
- Competition analyses
- Image analyses
- Management analyses
- Network analyses
- Price analyses
- Customer and employee satisfaction analyses

Our most important research methods are:

- Ad hoc surveys
- CATI interviews
- Face to face interviews
- Semi-structured interviews
- Group discussions
- Desk research

When the company was founded in 2000, the focus of EuPD Research was on market and management analyses within the German market and the development of new methods and contents. Since that time the renewable energy industry – with particular regard to PV – has become the most important focus area, mainly set against the background of the current and future importance of this economic sector. In the course of time we were able to extend our clientele and service portfolio and to widen our knowledge systematically to other European countries and towards international relations and networking. To satisfy increasing international demand in the industry, the US branch of EuPD Research was founded in 2008.

9. About EuPD Research

b.) EuPD Research in Figures

Principal Office	Bonn (NRW/Germany)
CEO	Markus A.W. Hoehner
Founded	11/24/2000
Legal Status	HOEHNER RESEARCH & CONSULTING GROUP GmbH
Employees	55 permanent employees/ 30 freelancers
% of Graduates	90% (50% social scientists, 35% economists, 15% others)
Interview Center	60 employees
Core Areas	Energy & Utilities, Pharmacy & HealthCare, Economics & Financial Research, Management & Controlling
Special Fields	Renewable energies, automotive sector, emissions trading, innovation management, health management
Membership	EuPD Research is a member of ESOMAR World Research



9. About EuPD Research

c.) References



Editorial

EuPD Research

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