PV Storage market in the UK & Germany—Insights from installers and end customers

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EuPD Research

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- Customer Satisfaction Seal
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- Top Brand PV

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About us

References within the segment energy markets (excerpt)
European PV InstallerMonitor 2015/2016: Germany v UK
Most of the German installers offer storage solutions to their customers.
Germany has the highest share of all our European studies.

Do you offer storage solutions? | Trade | Germany

- Total: 73% (16% offer battery systems, 11% do not offer battery systems but plan to do so in 2016, 13% do not offer battery systems and do not plan to do so in 2016, 11% do not know/no response)
- Solar Installer: 76% (11% offer battery systems, 13% do not offer battery systems but plan to do so in 2016, 19% do not offer battery systems and do not plan to do so in 2016, 10% do not know/no response)
- General Installer: 70% (19% offer battery systems, 10% do not offer battery systems but plan to do so in 2016, 1% do not offer battery systems and do not plan to do so in 2016, 11% do not know/no response)

Source: EuPD Research 2015
Installers’ portfolios

Most installers are planning to offer storage solutions to their customers in 2016. The share of installers, which already carry energy storage, has not changed much.

Do you offer storage solutions? | Trade | UK

- **Total**
  - We offer battery systems: 26%
  - Currently we do not offer battery systems but we plan to do so in 2016: 12%
  - We do not offer battery systems and we do not plan to do so in 2016: 9%
  - Don’t know/no response: 53%

- **Solar Installer**
  - We offer battery systems: 24%
  - Currently we do not offer battery systems but we plan to do so in 2016: 13%
  - We do not offer battery systems and we do not plan to do so in 2016: 9%
  - Don’t know/no response: 54%

- **General Installer**
  - We offer battery systems: 28%
  - Currently we do not offer battery systems but we plan to do so in 2016: 12%
  - We do not offer battery systems and we do not plan to do so in 2016: 8%
  - Don’t know/no response: 52%

Source: EuPD Research 2016

n = 200

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Reasons for not offering storage solutions

Concerns about storage are mainly about the prices being too high to be interesting to end customers. Most concerns are rated lower than last year though.

![Graph showing reasons for not offering storage solutions in Germany](image)

Source: EuPD Research 2015

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Reasons for not offering storage solutions

For many installation companies, storage is not (yet) part of their business. However, in the UK most concerns are rated lower than last year, too.

Source: EuPD Research 2016

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Customer segments

New installations dominate the storage market, whereas retrofit is no real option, yet. In most cases the storage solutions have less than 8 kWh capacity.

Source: EuPD Research 2015

What is the size (gross capacity) of battery storage you primarily install? | Germany

- 0 to 4 kWh: 24%
- 4 to 8 kWh: 65%
- 8 to 12 kWh: 5%
- Over 12 kWh: 5%
- No answer / don't know: 17%

n = 129

n = 131

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Customer segments

New installations also dominate the storage market in the UK. The size of the installed batteries is relatively diverse.

New installations & retrofit | UK

What is the size (gross capacity) of battery storage you primarily install? | UK

Source: EuPD Research 2016

- 80% New installations
- 20% Retrofit

- 29% 0 to 4 kWh
- 29% over 4 to 8 kWh
- 18% over 8 to 12 kWh
- 24% over 12 kWh
- no answer / don't know
Unaided brand awareness

As over the last years, SMA is the most known storage brand in Germany. The German manufacturer benefits from its popularity in other fields.

Source: EuPD Research 2015

Unaided brand awareness | Storage solutions | Germany | 2015

- SMA: 33%
- LG Chem: 21%
- Varta (Engion): 20%
- Fronius: 18%
- E3/DC: 16%
- Kostal: 16%
- Senec (Deutsche Energieversorgung): 16%
- Samsung: 15%
- Hoppecke: 14%
- Sonnenbatterie: 12%
- Nedap: 10%
- IBC Solar: 10%
- SolarWorld (SunPac): 9%
- Sony: 9%
- Bosch PT: 7%
- Solarwatt: 6%
- Tesla: 6%
- BMZ: 4%
- Akasol: 3%
- RWE: 3%

n = 202

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In the UK we see a similar picture, however less brands are known. This is a comparably good result, though, as a year ago only four brands were mentioned.
Distribution width of energy storage suppliers

SMA is also the most purchased energy storage brand in Germany. However, the competition is reasonably close together.

Source: EuPD Research 2015

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Distribution width of energy storage suppliers

In the UK, SMA has a much bigger lead ahead over the other most used brands. It is notable that the energy storage landscape is significantly different as in Germany.

Number of installers surveyed who purchase from … | Storage | UK

- SMA: 52.0%
- SolaX: 12.0%
- Nedap: 12.0%
- Samsung: 8.0%
- Growatt: 8.0%
- Enphase: 8.0%
- Victron: 4.0%
- Fronius: 4.0%
- LG Chem: 4.0%
- Leclanché: 4.0%
- SolarEdge: 4.0%

Source: EuPD Research 2016

n = 25
Importance of aspects

Service, security certifications and guarantee conditions are equally important features of a storage brand in the German market.

| Feature                                              | Importance Levels | Germany
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Service features</td>
<td>67% 28% 4%</td>
<td>1.4</td>
</tr>
<tr>
<td>Security certifications (TÜV, ISO, etc.)</td>
<td>66% 30% 3%</td>
<td>1.4</td>
</tr>
<tr>
<td>Guarantee conditions</td>
<td>66% 28% 5%</td>
<td>1.4</td>
</tr>
<tr>
<td>Ease of installation</td>
<td>60% 32% 7%</td>
<td>1.5</td>
</tr>
<tr>
<td>Decomposability (for transport and installation)</td>
<td>36% 44% 12% 2% 5%</td>
<td>1.9</td>
</tr>
<tr>
<td>Low price</td>
<td>30% 40% 25% 3%</td>
<td>2.0</td>
</tr>
<tr>
<td>Brand image</td>
<td>27% 53% 17%</td>
<td>2.0</td>
</tr>
<tr>
<td>Marketing material from the manufacturer</td>
<td>22% 47% 23% 5% 3%</td>
<td>2.2</td>
</tr>
<tr>
<td>Webshop</td>
<td>7% 13% 31% 11% 27%</td>
<td>3.4</td>
</tr>
</tbody>
</table>

1 = Very important  2  3  4  5 = Not important at all

n = 169

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**Importance of aspects**

Similar features are important in the UK as well, whereas installers highly regard storage brands that are easy to install. The lack of expertise is a clear factor here.

<table>
<thead>
<tr>
<th>Storage solutions</th>
<th>Importance of features</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guarantee conditions</td>
<td>64%</td>
<td>25%</td>
</tr>
<tr>
<td>1.5</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Ease of installation</td>
<td>53%</td>
<td>27%</td>
</tr>
<tr>
<td>Service features</td>
<td>50%</td>
<td>31%</td>
</tr>
<tr>
<td>Security certifications (TÜV, ISO, etc.)</td>
<td>41%</td>
<td>36%</td>
</tr>
<tr>
<td>Low price</td>
<td>42%</td>
<td>32%</td>
</tr>
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<td>33%</td>
</tr>
</tbody>
</table>

Source: EuPD Research 2016

n = 132

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Excursion: the British and the German homeowners
Only 30% of the British homeowners, who claim to be interested in PV, know about energy storage. Of these 30%, less than half consider buying a storage system.
Precautions against Blackouts (no contact / interested)

In general, it can be said that the majority of the surveyed homeowners have not taken any precautions against possible blackouts.

Did/would you take any precautions to protect your home against blackouts?

- Yes, I am using a generator.
- Yes, I am using a battery.
- Yes, I consider a generator.
- Yes, I consider a battery.
- I am generally interested but have no concrete plans yet.
- No.
- Don’t know

Did/would you take any precautions to protect your home against blackouts?

- Yes, I am using a generator.
- Yes, I am using a battery.
- Yes, I consider a generator.
- Yes, I consider a battery.
- I am generally interested but have no concrete plans yet.
- No.
- Don’t know
Precautions against Blackouts (rejecters / total)

In total, more than half have not done anything to prevent power outages. At least a bit more than a quarter is interested, but has no concrete plans.
Precautions against Blackouts (rejecters / total)

This graph shows the results in total. It becomes obvious, that the homeowners interested in PV are the most interested in taking precautions against blackouts.
Buying process (PV 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 storage, 30% already own a storage system.

Compared to the years 2012-2013 a remarkable increase can be observed: back then only 19% had received an offer and merely 12% had installed a storage solution.
Thank you very much for your attention!

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