The MPW Study

The Energy Services Market 2020: A Study by the MPW Institute LLC on energy service concepts.

The European market for energy services is set to grow. European Union policies and German legislation describe this objective as a major step on the way to achieving energy efficiency goals by 2020. However that may be, even in the flagship country of Germany, current developments in the market for energy services are failing to come up to expectations, with inadequate and obstructive legal frameworks, information deficits and the general economic climate being cited as reasons for the lack of a more positive market development. There has admittedly been no adequate previous research into what other aspects might also be hindering market growth.

There is also a need to clarify and establish which developments could be actively taken up by the industry to improve the range of energy services by 2020 to the point where larger markets can be opened up.

The study by the MPW Institute LLC is based on a survey of some 600 energy service managers. It focuses on the opinions of the respondents on the following aspects of development up to 2020: market growth, changes in the provider structure, obstacles to growth, factors that will drive development, the importance of smart technologies, mass-market capability and risk allocation.

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3 cf. the ‘Final Report (Revised) Market Analysis and Market Evaluation as well as Creation of a Market Observation Concept for Selected Energy Efficiency Services Services’ (German only) conducted on behalf of BAFA, Eschborn, by Prognos AG, ifeu Institut, Hochschule Ruhr-West dated 05.07.2013, also press release 2013/5 issued by the Verband für Wärmelieferung e.V. dated 28.05.2013
About MPW

As an operation with interdisciplinary activities, MPW Legal & Tax and MPW Consulting GmbH provide committed consultancy services for players in the energy services market. Our joint consultancy spectrum enables us to provide comprehensive business, tax, legal, technical and sales-related consultancy - all from a single source.

MPW Institute LLC represents those activities of MPW which revolve around the scientific reviewing of global or national issues in the energy services sector and which take place outside the scope of actual consulting projects. Within this unit we conduct research projects and surveys of a scientific nature, devise publications and organise and mount events. MPW Institute LLC is based in New York City.
The background to the study

Energy service providers can make a significant contribution to implementing energy efficiency measures. However the significance of this implementation route will depend on how the demand for energy services develops, how the providers in the market operate and what effect framework conditions have.

The MPW Institute LLC examined the expectations and experiences of energy service providers themselves as part of the survey. By far the majority of respondents are private enterprise companies, and of these, one third provide energy services only while another third provide engineering services as their core business. The remaining third are split among energy suppliers, technology providers and facility managers. The total turnover of energy services covered by the study is approx. 557 million EUR and represents around 20% of the market in the Federal Republic of Germany⁴.

The results of the survey can therefore be taken as a representative cross-section of the energy services sector in Germany.

Key findings of the study

1. The industry sees a moderate growth rate of 6-10% p.a. to 2020.

85% of the surveyed companies can see the market growing up to 2020, while a 15% minority see the market as stagnating. 56% of respondents are assuming a moderate market growth of under 10% p.a., whereas 29% anticipate growth to exceed 10% p.a. When asked about their expectations for their own businesses, the respondents tend to see themselves in a better situation than the market as a whole (see chart on page 24). Only 10% expect

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their own business to stagnate or even shrink, while 40% anticipate their turnover expanding by more than 10% p.a. and the remaining 50% believe they will experience moderate growth.

These somewhat cautious expectations are also mirrored in the perceptions of market obstacles (see below). Experience has taught energy service providers that legal and overall economic frameworks will not provide the impetus they have hoped for.

2. **The trend in the energy services sector is moving towards larger energy service providers with a multi-regional or national presence.**

A good two-thirds of the companies surveyed have expanded their radius of operations in recent years. Two-thirds again are anticipating a renewed expansion to take place in the coming years. 60% of the companies which were surveyed already have multi-regional or nationwide operations, with the result that a development towards larger units with a multi-regional or national reach can be expected in the years to come. 20% of providers are already active on a European or global scale.

This assessment coincides with developments observed in recent years: the trend toward concentration - particularly among specialised energy service providers - can be clearly seen. Following a number of high-profile take-overs.
of energy service providers between 2010 and early 2013, we are now seeing a rather more cautious attitude to acquisitions. Providers are concentrating more on organic growth and optimising their range of services so as to be able to absorb market developments. Reassessments of the definition of ‘target customer’ and of the focus on technology feature frequently on their agendas.

3. More and more companies in the energy services sector have a clear focus on technology and/or customer groups.

Nearly two-thirds of the companies we surveyed reported a clear customer and technology focus. Only just over 10% operate on the market on a ‘grab-bag’ principle. Among customer groups, SMEs, the housing sector and hospitals all have almost equal status as being the most popular among energy service providers. End-use customers and private customers lag way behind in last place and are only served by 16% of the companies who responded. When it comes to technologies, it is the focus on combined heat and power as an essential efficiency technology which stands out. This is followed by renewable energy sources in the field of power and heat generation. Building control and automation is well down in the ranking, as is efficient lighting technology.

Success in the market can only be achieved through focussing. This means that ‘ideal customers’ must first be defined when it comes to judging the attractiveness of customer groups. Customer needs have to be analysed in detail in this context, and product-specific / service-specific adjustments will usually have to be made to cater for individual groups of customers. A lack of focus on the

![What is your company’s particular focus? (customer group)](image)
part of providers will stand in the way of them handling projects efficiently, as new customer mentalities and unknown technologies will often have to be understood and mastered. The sales optimisation projects conducted by MPW Consulting GmbH have demonstrated the effect of a well thought-through focus on customer groups. The ability to balance one’s own corporate culture and values with the expected needs and demands of the customer is an important building block for success, and the companies we surveyed have in the main accepted this challenge.

### 4. Black sheep, legal frameworks and substandard concepts are the biggest problems for the energy services market.

When asked about current obstacles on the market, the respondents begin by citing the lack of trust in market players. Only 23% regard the debate about 'tenant rip-offs' as part of the tenancy law controversy, and the discussions in 2010 about 'cowboy contracting' with the unjustified claiming of energy tax relief as having an insignificant bearing on future market growth. All other respondents see this as a clear barrier to market growth. It will be essential to restore lost trust and belief in the fact that it is a desire to increase energy efficiency that is indeed the driving economic motive behind the energy services industry.

The industry’s current preoccupations are reflected in what are seen as obstructive legal frameworks. Deriving from the feed-in tariff model in Germany for renewables (Erneuerbare Energien Gesetz) the levy on electricity supplies from CHP, tenancy laws and the limited ability to pass on contracting fees, plus inadequate rules on tendering, are all identified as substantial legal obstacles.

The industry also perceives the lack of awareness of the available energy services and the unreasonable demands on payback periods as significant barriers. By contrast with
previous studies, the majority of respondents no longer see a lack of financing options as an obstacle.

5. The energy turnaround and the emergence of smart technologies will bring forward new energy service packages and so invigorate the market. Other main drivers are the increasing complexity of the energy industry and European policies.

The industry is counting on the energy turnaround in Germany to invigorate the market for energy services, with 77% of respondents anticipating a stimulus from this quarter. It is an expectation which is certainly justified from a number of standpoints.

First, the development of decentralised generation structures is inevitable. Structures of this kind often form the backbone of energy service offerings. Second, the energy turnaround is bringing with it a host of structural changes which are increasing the complexity of ‘energy’ as a theme. Energy service providers can score points on two counts: “energy efficiency” and “reducing complexity”. This will only apply of course if the industry succeeds in structuring its services in such a way that using them will actually reduce complexity. This opportunity will be wasted if involving an energy service provider results in a further
increase in complexity because of the cryptic contractual and risk structure of the package.

Besides greater customer benefit and the prospect of greater customer autonomy, smart technologies also promise effects of synergy which reach beyond the actual project. To this extent, 60% of respondents expect a positive impetus from the emergence of smart technologies. The integration of a project in a 'smart grid' for example would enable the use of producers and consumers to optimise the system as a whole – an effort which the energy service provider can organise and with which he can contribute significant added benefit. The full effect of this anticipated benefit will of course only be felt after the overdue remodelling of the electricity market and other structures. 56% of respondents also found that European policies are positive sources of inspiration in the market for energy services. It is undoubtedly significant in this context that previous incentives such as the Energy Services Directive were of European origin even though their translation into German law with the Energy Services Act of 4.11.2010

How are the following framework conditions likely to impact the energy services market going forward to 2020?

- Lack of financing options for the customer: 40% negative, 35% insignificant, 25% positive
- Dwindling margins in the energy supply business: 40% negative, 44% insignificant, 17% positive
- National legislation: 38% negative, 19% insignificant, 44% positive
- National political framework: 33% negative, 17% insignificant, 50% positive
- Changing demand owing to the complexity of the energy industry: 19% negative, 31% insignificant, 50% positive
- Changing demand owing to changes in company goals: 15% negative, 44% insignificant, 42% positive
- European regulations: 15% negative, 29% insignificant, 56% positive
- Changing demand due to demographics (ageing population, interest in comfort): 8% negative, 58% insignificant, 33% positive
- European political framework: 8% negative, 35% insignificant, 56% positive
- New energy service products through smart technologies: 4% negative, 35% insignificant, 60% positive
- New energy service products through the energy turnaround: 2% negative, 21% insignificant, 77% positive

5 cf. for example: Comparison of electricity market models: Design options for a capacity market, documentation of papers presented at the discussion meeting on 10 June 2013 by agora Energiewende, http://www.agora-energiewende.de
left much to be desired. The industry places more faith in Europe as a ‘trendsetter’ than in its own government from whom only 44% expect to receive a positive impetus.

6. Smart technologies and services will have a decisive effect on the continued development of energy service packages.

A small majority of the companies we surveyed (52%) do not see smart technologies as a business segment in their own right, believing instead that technologies such as smart metering represent one component of energy services. Only 19% of respondents regard smart metering as irrelevant.

60% of respondents can imagine energy service providers operating virtual power plants and bringing together local producers in this way. 56% can envisage operating individual local plants offering these capacities on the electricity market. Respondents were more sceptical about the operation of electricity storage facilities (52% in favour). Only 44% of respondents could imagine that energy service providers can penetrate the customer world by operating on/off appliances (demand response).

A further weakness of the industry is regrettably apparent here. The idea of moving closer to end-use customers...
than just to their meters is one which appeals to the fewest energy service providers. Most respondents do not regard the ability to control appliances, operate smart home solutions or even control a smart grid as a relevant energy services package. On the positive side however, one fifth of companies have the potential to incorporate smart technologies into their services. It remains to be seen how this attitude will change over time and whether innovative companies will succeed in designing suitable offers and placing them on the market.

7. Energy services will be mass-marketable by 2020 because they are attractive for end-use customers. The obstacles are insurmountable at the present time however.

While only 31% of respondents think that energy services are marketable on the mass market of end-use customers, 70% expect the mass-market capability of energy services to be achieved by 2020.

Those who anticipate a positive development in the mass market believe that it will be helped above all by their entry into unexploited efficiency technologies and factors such as service, reliability and convenience.

Only 48% of the respondents in this group see any cost benefits. This is also mirrored in the perception that costs are currently still unattractive for the fragmented mass market. 65% of the respondents in this group do not see any cost benefits at the present time, and 61% ascribe this to excessive transaction costs.

It seems clear therefore that the key to the mass market will be to standardise energy service packages in order to reduce transaction costs. Services must direct their focus

[Image of bar chart showing preferences for energy services]

**Do you believe that energy services could be mass marketable by 2020? Response: Yes**

**Which aspects are particularly attractive to end users?**

- Getting into unused efficiency technology (e.g. CHP)
- Service quality and reliability
- Increase in convenience
- Cost benefits from optimising the efficiency of energy service providers
- Cost benefits from effects of scale with energy service providers
- Getting into smart energy, e.g. smart home solutions
- CO₂ saving (carbon footprint)
- Other reasons

(Multiple answers possible)
squarely on the benefit to the customer, with particular emphasis on convenience and service as well as technological aspects. Here again, the use of smart technologies should play a key role.

8. The energy services sector is not (yet) ready to take on the added risks of supplying useful energy services.

The way in which risks are currently allocated in energy service offerings is clear: The energy service provider bears the technical risks inherent in the production/generation facilities and the financial risk. All other risks arising from changes in end-use energy prices, the weather, user behaviour etc. are borne by the customer.

The question will be whether energy service providers will be able to carry other risks in future in order to reduce the complexity of what they offer. If they bore the risk of changes to the price of end-use energy for example, this could make price review clauses in energy service agreements redundant. Bearing the weather risk would make it possible to offer flat rates depending on the comfort level – the simplest form of pricing.

There is however no great willingness to consider such changes to the offering at the present time. 72% of respondents reject the idea of taking on additional risk, not least with reference to the 2020 time horizon.

These attitudes will need to be examined further in future. Reducing complexity will necessarily result in changes to the way in which risks are allocated. Only if there is a willingness to consider taking on risks and developing techniques for handling these risks will a sustained expansion of the energy services package be possible.

Can you see yourself taking on more risk by 2020 so there is less risk for customers?

- Yes: 28%
- No: 72%
**Conclusion**

The year 2020 should see the achievement of major climate objectives in Europe. Energy service providers should and want to make a significant contribution to achieving these goals. This study highlights which development options exist specifically within the energy services sector itself to enable it to meet this challenge. They are:

- Developing a clear customer and technology focus so as to avoid the 'grab bag' effect which stands in the way of business success,

- Concentrating on energy efficiency as a significant business success factor for regaining trust and for sustained success,

- Incorporating smart technologies so as to meet customer demands in terms of convenience and service and to generate further profit margins,

- Examining the possibility of taking on additional risks (price, weather, behavioural risks) in order to reduce complexity and achieve mass marketability.

Market growth has so far lagged behind expectations with the result that energy service providers are not perceived as major players in attaining the stated climate objectives. It is within the power of the industry itself to turn this situation around.

Whereas the majority of energy service providers already accept that developing a customer and technology focus is a necessity, the use of smart technologies is still regarded with some scepticism. The industry shows very little appetite for engaging with risks which are currently borne by the customer – and actually displays a distinct aversion to innovative risk allocation. This aversion must be overcome.

The study shows that the energy services sector can itself do much that would boost its market success. The market players are challenged to develop innovative service concepts that will accommodate changes in demand and incorporate future themes. The energy services sector will then be able to play the role to which it aspires in the energy market by 2020 and increase its market success.

Northeim / New York, August 2013
I
The industry sees a moderate growth rate of 6-10% p.a. to 2020.

II
The trend in the energy services sector is moving towards larger energy service providers with a multi-regional or national presence.

III
More and more companies in the energy services sector have a clear focus on technology and/or customer groups.

IV
Black sheep, legal frameworks and substandard concepts are the biggest problems for the energy services market.

V
The energy turnaround and the emergence of smart technologies will bring forward new energy service packages and so invigorate the market. Other main drivers are the increasing complexity of the energy industry and European policies.

VI
Smart technologies and services will have a decisive effect on the continued development of energy service packages.

VII
Energy services will be mass-marketable by 2020 because they are attractive for end-use customers. The obstacles are insurmountable at the present time however.

VIII
The energy services sector is not (yet) ready to take on the added risks of supplying useful energy services.
Annex

Below is an overview of all of the questions and responses to the study. The core statements made on previous pages are based on these findings of the survey.
Type of company?

Where is your company currently based?

What is the main focus of your company?

What was your turnover in 2012?

Turnover on energy services?

How many people did you employ in 2012?

What is your company’s turnover on energy services likely to be in 2013?

How is your turnover on energy services likely to change compared with 2012?

Where is your company offering energy services in 2013?

Has your geographical radius of operations expanded over the past 3-5 years?

Are you planning to expand your radius of operations in the coming 1-3 years?

Where do companies which are connected to your company in a group offer energy services?

What is your company’s particular focus?

Which energy services is your company actively promoting in 2013?

Future prospects to 2020

How do you see the future of the market for energy services overall to 2020?

Compared with this, how do you see the future of your company’s range of energy services going forward to 2020?
What problems are currently impeding market growth?

How are the following framework conditions likely to impact the energy services market going forward to 2020?

Which statements about smart metering would you agree with?

Which “smart” ideas can you imagine will be playing a major role for your energy services offering by 2020?

Do you believe that energy services are already suitable for mass marketing today (end users)?

- Yes
- No

Which aspects are particularly attractive to end users?

What obstacles do you see in the mass market (end users)?

Do you believe that energy services could be mass marketable by 2020?

- Yes
- No

Which aspects are particularly attractive to end users?

What obstacles do you see in the mass market (end users)?

What obstacles do you see in the mass market (end users)?

Which additional risks will your company be able to take in 2020?

Can you see yourself taking on more risk by 2020 so there is less risk for customers?

- Yes
- No

Who bears the following risks in your company’s contracts?

You can enter your email address here if you are interested in a PDF analysis of the survey when the study is completed.

End of the survey
Typ of company

- Municipal: 10%
- Private enterprise: 90%

Where is your company currently based?

- Saxony: 21%
- Saarland: 4%
- Rheinland-Pfalz: 4%
- Brandenburg: 2%
- Lower Saxony: 15%
- Baden-Württemberg: 2%
- Hesse: 6%
- Berlin: 15%
- Nordrhein-Westfalen: 15%
- Bavaria: 23%
What is the main focus of your company?

- Engineering service provider: 33%
- Energy service provider only: 21%
- Energy supplier: 11%
- Energy technology: 4%
- Facility management: 31%

Total turnover

- 5 to 10 mn EUR: 52%
- 10 to 50 mn EUR: 4%
- 50 to 100 mn EUR: 24%
- over 100 mn EUR: 28%

Turnover on energy services

- up to 500.000 EUR: 16%
- 500.001 to 999.999 EUR: 28%
- 1 to 5 mn EUR: 28%
- 5 to 10 mn EUR: 12%
- 10 to 50 mn EUR: 16%
- over 50 mn EUR: 0%
Total workforce

- 72% under 100
- 16% 100-250
- 12% over 500

Energy service staff

- 64% under 100
- 32% 100-250
- 4% over 500

What is your company’s turnover on energy services likely to be in 2013?

- 8% 0 € - 99,999 €
- 8% 100,000 € - 999,999 €
- 16% 1,000,000 € - 9,999,999 €
- 40% 10,000,000 € - 99,999,999 €
- 28% 100,000,000 € - 120,000,000 €
How is your turnover on energy services likely to change compared with 2012?

- Shrink (-20% - -5%): 8%
- Remain level (-5% - +5%): 32%
- Grow (5% - 20%): 48%
- Grow rapidly (over 20%): 12%

Where is your company offering energy services in 2013?

- Nationally: 36%
- Regionally: 32%
- Interregionally: 24%
- Worldwide: 8%
Has your geographical radius of operations expanded over the past 3-5 years?

- Yes: 68%
- No: 32%

Are you planning to expand your radius of operations in the coming 1-3 years?

- Yes: 32%
- No: 68%

Where do companies which are connected to your company in a group offer energy services?

- Interregional: 32%
- National: 16%
- Regional: 16%
- Not applicable (not part of a group): 16%
- Worldwide: 16%
- Across Europe: 8%
What is your company’s particular focus? (customer group)

(Multiple answers possible)

- Customer group: end-use customer/private customers: 16%
- Customer group: heavy industry (power plants, services suppliers): 20%
- Customer group: public bodies: 44%
- Customer group: hospitals, social facilities: 60%
- Customer group: housing sector, property owners: 60%
- Customer group: SMEs: 72%

What is your company’s particular focus? (Technology)

(Multiple answers possible)

- Other focus (e.g. complex properties, energy efficiency solutions): 8%
- Technology: lighting (e.g. LED): 20%
- Technology: building control and automation: 24%
- Technology: renewable energy sources (power): 48%
- Technology: renewable energy sources (heat): 60%
- Technology: combined heat and power CHP: 64%
Which energy services is your company actively promoting in 2013? (% of turnover)

- Heat supplies: 50.90%
- Energy performance contracting: 11.58%
- Steam supplies: 9.01%
- Power from CHP plants: 8.80%
- Cooling/ HVCA supplies: 7.42%
- Other energy services: 6.12%
- Power from renewables: 2.96%
- Other net energy supplies: 1.20%
- Lighting supplies: 0.98%
- Energy system operating (not supply): 0.76%
- Financial contracting or leasing: 0.24%
- Hybrid forms of energy supply and saving contracting: 0.03%
How do you see the future of the market for energy services overall to 2020?

- Stagnating (-2% - 2%): 56%
- Growing (2% - 10%): 29%
- Growing strongly (über 10%): 15%

Compared with this, how do you see the future of your company’s range of energy services going forward to 2020?

- Shrinking (-2% - -10%): 2%
- Stagnating (-2% - 2%): 8%
- Growing (2% - 10%): 50%
- Growing strongly (over 10%): 40%
### What problems are currently impeding market growth?

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<tr>
<th>Problem</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
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<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
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<tbody>
<tr>
<td>Burden imposed by the levy from renewables on power from CHP</td>
<td>38%</td>
<td>25%</td>
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<td>Investor/ user dilemma (housing sector, tenancy laws, passing on costs)</td>
<td>33%</td>
<td>40%</td>
<td>27%</td>
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<td>Lack of funding for energy efficiency (e.g., advantages in energy taxes)</td>
<td>23%</td>
<td>40%</td>
<td>38%</td>
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<td>Tendering practices of public clients (the quality of tendering)</td>
<td>21%</td>
<td>44%</td>
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<td>Rules on the tendering rights of public institutions</td>
<td>21%</td>
<td>42%</td>
<td>38%</td>
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<td>Excessive demands on the payback period</td>
<td>21%</td>
<td>52%</td>
<td>27%</td>
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<tr>
<td>Misguided funding or lack of other funding</td>
<td>21%</td>
<td>48%</td>
<td>31%</td>
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<tr>
<td>Lack of awareness of the energy services on offer</td>
<td>17%</td>
<td>58%</td>
<td>25%</td>
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<tr>
<td>Lack of confidence due to actual or alleged misconduct of some providers (&quot;cowboy contractors, tenants ripped off&quot;)</td>
<td>15%</td>
<td>63%</td>
<td>23%</td>
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<tr>
<td>Lack of financing</td>
<td>8%</td>
<td>33%</td>
<td>58%</td>
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</tbody>
</table>

- a major obstacle
- an obstacle
- insignificant
How are the following framework conditions likely to impact the energy services market going forward to 2020?

<table>
<thead>
<tr>
<th>Condition</th>
<th>Negative</th>
<th>Insignificant</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of financing options for the customer</td>
<td>40%</td>
<td>35%</td>
<td>25%</td>
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<tr>
<td>Dwindling margins in the energy supply business</td>
<td>40%</td>
<td>44%</td>
<td>17%</td>
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<tr>
<td>National legislation</td>
<td>38%</td>
<td>19%</td>
<td>44%</td>
</tr>
<tr>
<td>National political framework</td>
<td>33%</td>
<td>17%</td>
<td>50%</td>
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<tr>
<td>Changing demand owing to the complexity of the energy industry</td>
<td>19%</td>
<td>31%</td>
<td>50%</td>
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<tr>
<td>Changing demand owing to changes in company goals</td>
<td>15%</td>
<td>44%</td>
<td>42%</td>
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<tr>
<td>European regulations</td>
<td>15%</td>
<td>29%</td>
<td>50%</td>
</tr>
<tr>
<td>Changing demand due to demographics (ageing population, interest in comfort)</td>
<td>8%</td>
<td>58%</td>
<td>33%</td>
</tr>
<tr>
<td>European political framework</td>
<td>8%</td>
<td>35%</td>
<td>56%</td>
</tr>
<tr>
<td>New energy service products through smart technologies</td>
<td>4%</td>
<td>35%</td>
<td>60%</td>
</tr>
<tr>
<td>New energy service products through the energy turnaround</td>
<td>21%</td>
<td>21%</td>
<td>77%</td>
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</tbody>
</table>
Which statements about smart energy would you agree with?

(Multiple answers possible)

- Smart metering is not actually an energy service and is not in itself marketable. (52%)
- Smart metering is certainly one element of energy services but the real service must be the supply of net energy. (48%)
- Smart metering can boost the energy services sector because it brings interaction with the customers more sharply into focus. (44%)
- Smart metering is an energy service which will be a significant market in its own right. (21%)
- Smart metering is of no interest to the energy services sector. (19%)
- Other statements (saving is overrated, smart metering facilitates lots of new energy services (e.g. benchmarking)) (8%)
Which 'smart' ideas can you imagine will be playing a major role for your company’s energy services offering by 2020?

(Multiple answers possible)

- Energy service providers as operators of a virtual power plant made up of different small and micro plants: 60%
- Energy service providers as operators of electricity generating plants which can be turned on and off (control energy and residual energy market): 56%
- Energy service providers as operators of electricity storage facilities: 52%
- Energy service providers as suppliers of electrical loads which can be turned on and off (demand response): 44%
- Energy service providers as operators of smart home solutions: 27%
- Energy service providers as operators of a smart grid: 21%
- Energy service providers as operators of an e-car sharing service: 19%
- Other 'smart' ideas (e.g. greening business, 'supplier' of control services, integrated energy controlling, energy efficiency): 13%

Do you believe that energy services are already suitable for mass marketing today (end users)?

- Yes: 31%
- No: 69%
What obstacles do you see in the mass market (end users)?

(Multiple answers possible)

- Too expensive, no cost benefits
- Other reasons
- Excessive transaction costs for end user projects (small batch sizes)
- No added benefit
- No demand for energy services among end users

Which aspects are particularly attractive to end users?

(Multiple answers possible)

- Cost benefits from optimising the efficiency of energy service providers
- Getting into unused efficiency technology (e.g. CHP)
- Service quality and reliability
- CO2 saving (carbon footprint)
- Getting into smart energy, e.g. smart home solutions
- Increase in comfort
- Cost benefits from effects of scale with energy service providers
- Other reasons
Do you believe that energy services could be mass marketable by 2020? Response: Yes

Which aspects are particularly attractive to end users?

(Multiple answers possible)

- Getting into unused efficiency technology (e.g. CHP) 70%
- Service quality and reliability 61%
- Increase in convenience 57%
- Cost benefits from optimising the efficiency of energy service providers 48%
- Cost benefits from effects of scale with energy service providers 43%
- Getting into smart energy, e.g. smart home solutions 43%
- CO₂ saving (carbon footprint) 39%
- Other reasons 9%
Do you believe that energy services could be mass marketable by 2020? Response: No

What obstacles do you see in the mass market (end users)?

(Multiple answers possible)

- Too expensive, no cost benefits: 65%
- Excessive transaction costs for end user projects (small batch sizes): 61%
- No demand for energy services among end users: 26%
- No added benefit: 9%
- Other reasons: 9%
Do you believe that energy services could be mass marketable by 2020?

- Yes: 30%
- No: 70%

What obstacles do you see in the mass market (end user)?

(Multiple answers possible)

- Too expensive, no cost benefits: 90%
- No demand for energy services among end users: 60%
- Excessive transaction costs for end user projects (small batch sizes): 60%
- No added benefit: 30%
- Other reasons: 10%
Do you believe that energy services could be mass marketable by 2020? Response: No

Which aspects could be attractive to end users in spite of this?

- Service quality and reliability
- Increase in comfort
- Cost benefits from optimising the efficiency of energy service providers
- Getting into unused efficiency technology (e.g. CHP)
- Cost benefits from effects of scale with energy service providers
- Getting into smart energy, e.g. smart home solutions
- CO₂ savings (carbon footprint)
- Other reasons
Who bears the following risks in your company's contracts?

- **Investment risk (investing in plant)**: 72% (Customer) 28% (Energy services company)
- **Price risk (fuel)**: 72% (Customer) 28% (Energy services company)
- **Behaviour risk (more/less demand)**: 68% (Customer) 32% (Energy services company)
- **Climate risk (weather)**: 64% (Customer) 36% (Energy services company)
- **Development risk (more/less demand)**: 56% (Customer) 44% (Energy services company)
- **Financing risk (change in interest rates)**: 44% (Customer) 56% (Energy services company)
- **Servicing/maintenance risk**: 20% (Customer) 80% (Energy services company)

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Can you see yourself taking on more risk by 2020 so there is less risk for customers?

- **Yes**: 28%
- **No**: 72%
Can you see yourself taking on more risk by 2020 so there is less risk for customers? Response: Yes

Which additional risks will your company be able to take in 2020?

(Multiple answers possible)
Office Northeim
Güterbahnhofstraße 35
D-37154 Northeim
Tel.: +49(5551) 988 07 - 0
Mail: info@mpw-net.de
Web: www.mpw-net.de

Office Bochum
Prümerstraße 2
D-44787 Bochum
Tel.: +49(234) 579 263 - 25
Mail: info@mpw-net.de
Web: www.mpw-net.de

Office New York
44 Court Street, Suite 1217
Brooklyn, NY, 11201, US
Tel.: +1 (347) 259 3312
Mail: info@mpw-net.org
Web: www.mpw-net.org