



Stowarzyszenie Producentów
i Importerów **Urządzeń Grzewczych**

The market of heating appliances in Poland in 2017 and the 1st half of 2018

SPIUG report

Association of Heating Appliances, Manufacturers and Importers in Poland

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1 Introduction

In Poland, a trade report on the development of the space heating device market has not been available for many years. The only report in this subject available to the people and companies active in this industry is made abroad.

The Association of Heating Appliances Manufacturers and Importers /SPIUG/ is a trade organization established in 2005, which gathers manufacturers of a broad range of heating devices, such as gas boilers, oil boilers, solid fuel boilers, electric boilers, solar collectors or heat pumps. It also cooperates with manufacturers who develop innovative heat sources and heating equipment. Members of SPIUG include such brands as: ACV, Ariston, Baxi, Beretta, Buderus, DeDietrich, Defro, Ferroli, Fondital, Galmet, Hewalex, Junkers, Bosch, Immergas, Kospel, Sanier Duval, Secespol, Sofath, Stiebel Eltron, Termet, Thermagen, Unical, Vaillant, Viega, Viessmann, Weishaupt and Wolf. The market of individual heating devices in Poland is one of the larger ones in Europe, and most certainly has a significant growth potential. On the other hand, Poland has one of the most developed heating networks in EU, which is why, unlike other EU countries, a high percentage of buildings in cities, particularly multi-family ones, is connected to heating networks, or has such a possibility, due to the infrastructure present nearby. All that influences the situation in the installation and heating market in Poland, and its growth.

So far, there has been no comprehensive study on the market of heating appliances in Poland. Due to the specificity of the market of individual heating appliances, as well as the SPIUG area of operations, this report contains information about the development of the lower-power heating appliances market. This report is based on SPIUG's own analyses in the scope of the heating appliances themselves, and in the section concerning the surroundings of the installation and heating market. Due to the process of collecting information about the market, the report 2017 refers to the situation and market data which also concern the first half of 2018, as a continuation and reference of the situation in the analogous period of the preceding year. Lack of reliable estimates concerning the market size and development of certain product groups which constitute heating appliances, such as e.g. oil radiators, prevents this report from presenting the market situation in these groups, or allows to show a general analysis only.

2 General market situation in 2017

A number of factors influenced positive results in the installation and space heating industry, The general economic situation of the Country and the results achieved favoured this phenomenon. The economic situation and the feeling in the industry reflected growth in sales, which occurred in the industry since the second quarter of 2017. Growth in consumption, as well as the ability to use EU funds from the last handout, certainly influenced the situation in the installation and heating industry. Add this to the citizens' withdrawing their savings from bank and locating them in walls as a safer form of investment to get an overview of the primary factors which influenced the dynamic market growth in 2017.

2.1 General economic situation in Poland in 2017 and factors which influenced the growth of the installation and space heating market

In January 2018, GUS (Statistics Poland – General Office) published statistical data. According to these estimates, the GDP in Poland in 2017 reached a 4.6% increase compared to 2016, when a growth of 2.9% was recorded. Towards the end of the year, in December 2017, sold production of the industry was 2.7% higher compared to December 2016. After eliminating factors of seasonal nature, sold production of the industry was 7.3% higher than in December 2016, and in the entire 2017, sold production of the industry increased by 6.5% compared to 2016, when an increase of 3.1% was recorded. In 2017, the growth tendency in the construction-assembly production consolidated, with the growth in December 2017 reaching 12.7%, compared to December 2016, when a drop of 8% was recorded. After eliminating the influence of seasonal factors, the construction-assembly production was 17.6% higher than in December 2016, and in the entire 2017, the building and installation production was 12.1% higher than in 2016, when, compared to 2015, a 14.1% decrease was recorded. According to the GUS, compared to December 2017, an increase in production was recorded in all the building sectors, whereas in entities whose primary type of business is specialist works, which also include the installation and heating works, an increase of 11.6% was recorded, and in sectors dealing with construction of buildings – one of 2.3%. According to the same source, the prices of building and assembly production in December 2017 were 0.2% higher than in November 2017. The prices of building construction and specialist construction works, including installation and heating works, increased by 0.2%, whereas compared to December 2016, the prices of building and assembly production were 1.4% higher than a year before. The prices of specialist construction works also increased by 1.6%, and those of building construction – by 1.5%.

Generally, in the entire 2017, the prices of building and assembly production increased by 0.6%, compared to 2016. The prices of specialist building works increased by 1.1%, and those of building construction – by 0.7%. Of course, one may question the official statistical data on price growth provided by the GUS. According to signals collected in the market, the rise in prices in construction industry, including particularly in housing construction and installation-space heating industry, was much higher, both in the scope of materials and workmanship, but these opinions are not substantiated with measurable research, making it difficult to reliably assess the growth in these prices. Yet, it is known that the dynamic price growth tendency in the building industry quickened its pace in the first half of 2018, which is also visible in the official statistics, according to which the prices of building goods grew much faster than in 2017. In the second quarter of 2018, the growth dynamics of the manufacturers' prices in construction was higher than in the first quarter and came to 2.1%.

In 2017, investments increased by 5.4 %, after a 7.9% drop recorded a year earlier. Taking into account that the investments started visibly growing only in the 3rd quarter of 2017, when the increase came to 3.3 % annually, the whole-year result may indicate that an investment boom started in the 4th quarter of 2017. Economists estimate that towards the end of the year the investment growth rate could have been two-digit, which also translates into the situation in the installation and space heating industry. Such results may please, although they should be approached with caution. Since the beginning 2018, more and more concerns about the investment structure have been heard. Individual customers' investments in flats started to slow down a bit in 2018, due to relatively high price increases, dictated by the developers. One of the reasons for jacking up prices per m² of new apartments is, apart from high demand from the customers, also the increase in the construction costs, caused by higher prices of building materials and labour, the shortage of which is more and more perceptible in the entire building industry, also since the beginning of 2018. Good results achieved in the installation and heating industry are also indirectly attributable to a significant increase in the domestic demand and a prosperous global economy, which the Polish manufacturers to achieve good export results. Moreover, after a certain slump in the organization of tenders concerning projects using EU funds, caused by organizational issues after a wave of personal fluctuations after the government changed, positive tendencies could be noticed in this field too. Commencement of a series of local investments based on the EU funds translated into growth in the building market, including installation and heating. Yet, the fact that the low level of investments in the private sector has continued into 2018 causes some concern.

2.2 Residential construction

The situation in the residential construction currently has a great impact on good performance in the installation and space heating industry, and will continue to do so in the near future,

According to data provided by the GUS, in 2017 in each category of the so-called commissioned apartments, commissioned apartments, apartments under construction and apartments approved for construction, an increase was recorded, which translated directly into the results in the industry for 2017. The positive tendency has also increased since the beginning of 2018, which shows that 2018 should not be worse in the installation and heating industry than the preceding year. According to the data published by the GUS, in 2017, over 178 thousand of apartments were commissioned, which means an increase of 9.1% compared to the number of apartments commissioned in 2016, when the increase was 10.6 %, but in relation to a lower base. In 2017, over 250 apartment building permits were issued, which was 18.3% more than in 2016, when this increase was 12%. Also in the group of apartments under construction, a significant growth of 18.4% was recorded, with almost 206 thousand apartments being constructed, compared to 2016 when this increase was 3.3%.

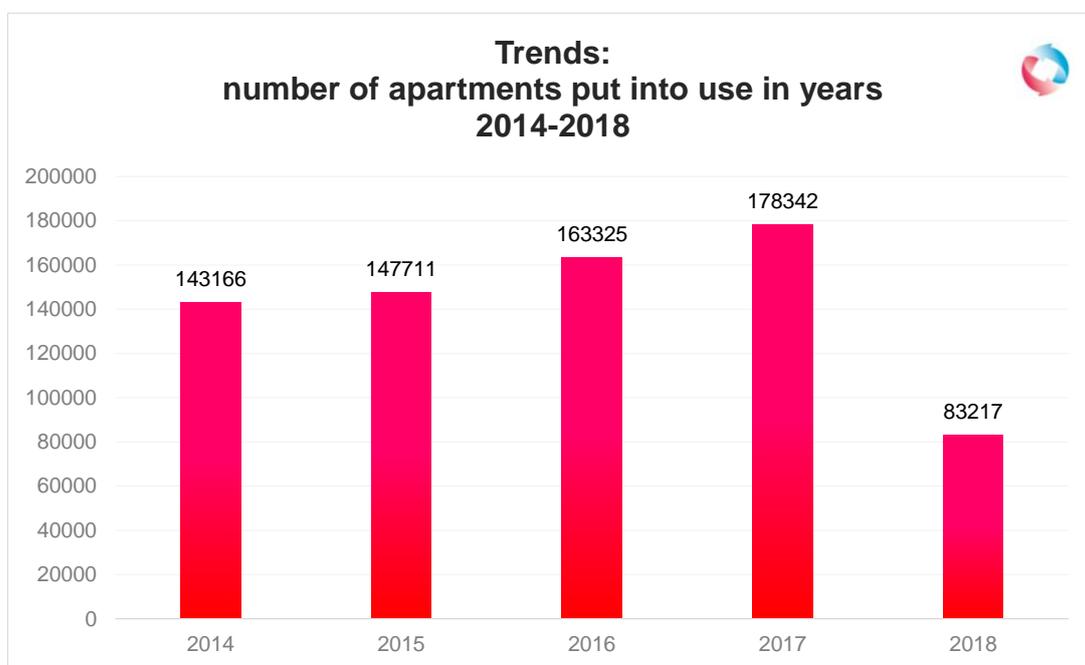


Fig. 1 Number of commissioned apartments in 2014 – 1st half of 2018 (Source: GUS)

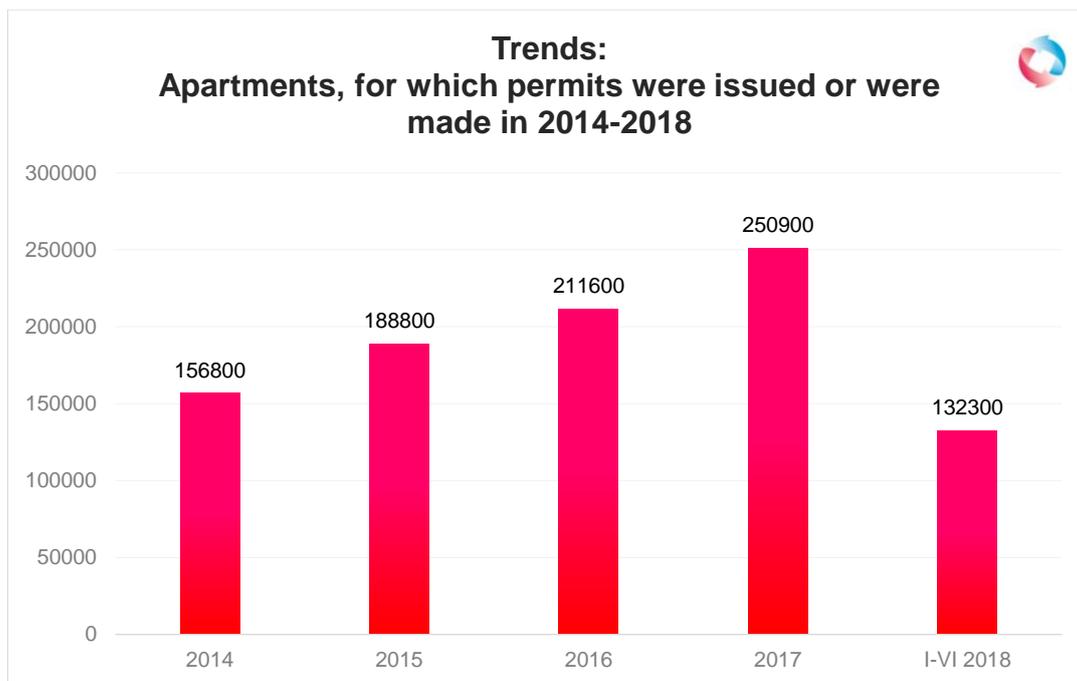


Fig. 2 Number of apartments for which permits were issued or applications were made in 2014 – 1st half of 2018 (Source: GUS)

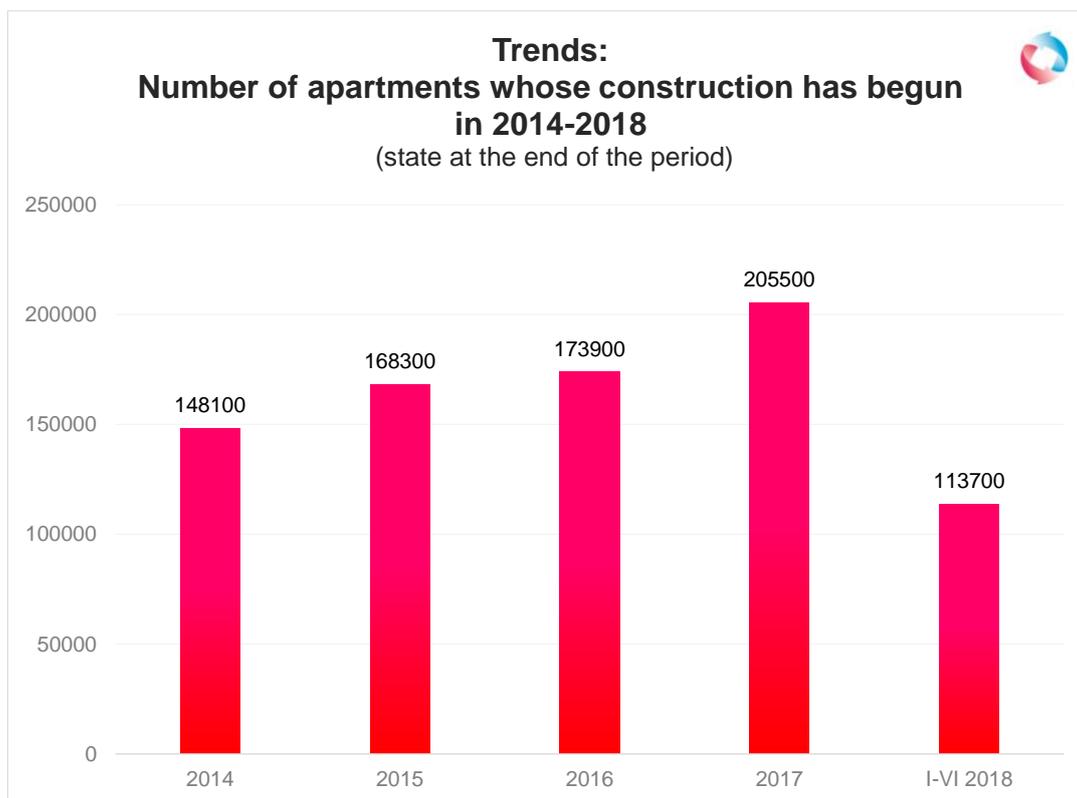


Fig. 3 Number of apartments the construction of which has been commenced in 2014 – 1st half of 2018 (Source: GUS)

The results and the tendencies related to the number of commissioned apartments, apartments under construction and the number of issued construction permits and applications in this scope allow us to analyze the growth potential of the installation and heating market in the years to come, in the so-called first installation segment. It can be assumed that the developers' building cycle takes 18-24 months, whereas in the case of single-family construction, it usually takes about 2-3 years, sometimes longer. This means that the investments started now will be fitted with heating devices at the final stages of construction, during finishing works. Of course, pipes, connectors, etc. are fitted earlier, but the heating devices themselves – only towards the end, when, for instance, the rooms must be heated during final finishing of the interiors. Also, there is a certain delay between the moment of receiving the building permit and finding the contractor, who actually commences the construction works. This also gives a measurable potential of demand for space heating devices in an even longer perspective. Hence, it is also worth examining the data concerning building movement in various groups of investors, as their rate of performance also shifts the demand for heating devices into the future. In the case of commissioned buildings, they are complete and constitute a basis for analysing the actual and historic data.

In the classification on investors, the situation is as follows: In the group of single-family construction, which is the major consumer of individual heating devices in the market, in 2017 over 82.6 thousand apartments were commissioned, that is 5.9% more than in 2016. Yet, the share of this group of investors in the total number of commissioned apartments decreased to 46.4%, compared to 2016, when it came to 48%. This is also when a decrease of 2.1% in the number of apartments commissioned among private investors took place. In 2017, private investors obtained almost 115 thousand building permits, including applications with construction design for apartments, which means a 16.6% increase compared to 2016, when this increase was 12.6%. Moreover, individual investors started building over 94.4 thousand apartments, which means a 13% increase compared to 2016, when this increase was 6%.

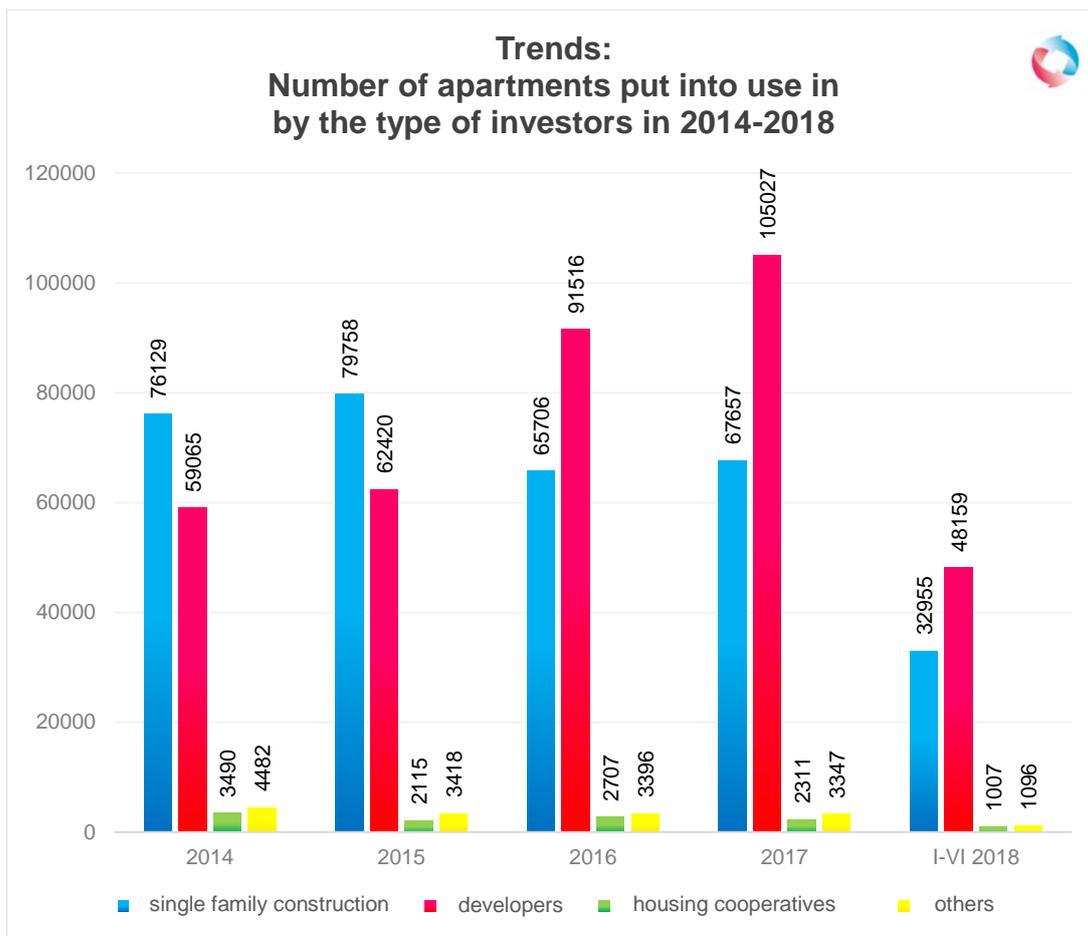


Fig. 4 Number of apartments commissioned in 2014 – first half of 2018, by investor groups (Source: GUS)

In 2017, developers commissioned over 89.8 thousand apartments, i.e. 13.5% more than in 2016, when the increase was 26.8%, which brought their share up to 50.4% of the total number of commissioned apartments. Developers obtained building permits for almost 128.5 thousand apartments, which means a 20.5% increase compared to 2016, when this increase was 9.7%. Also, in the group of developers, the number of apartments under construction increased to about 105.4 thousand, which means a 23.3% increase compared to 2016, when a decrease of 1.2% was recorded.

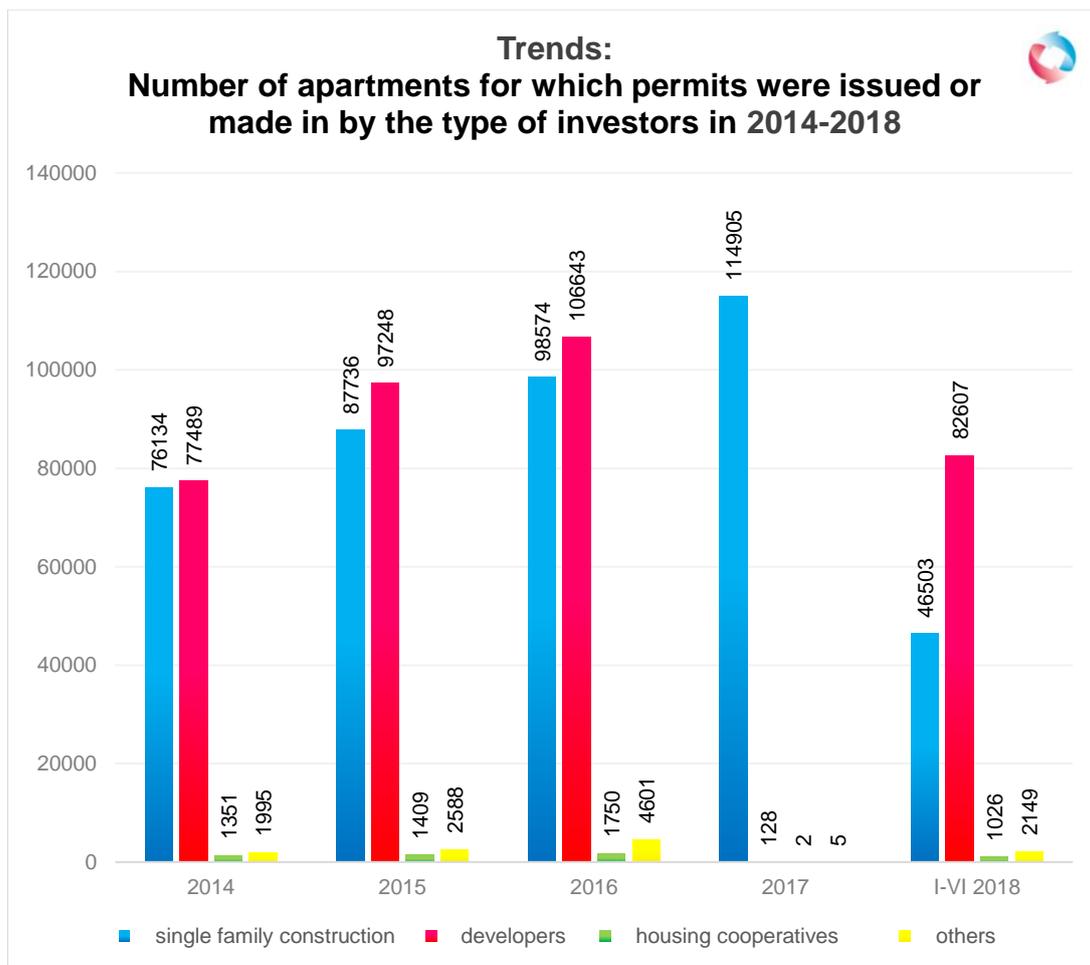


Fig. 5 Number of apartments for which permits were issued or applications were made in 2014 – 1st half of 2018, by investor groups (Source: GUS)

In 2017, housing cooperatives commissioned 12.2% less apartments than in 2016 (2376 vs. 2707). In this investor group, the number of apartments for which construction permits were issued also dropped compared to 2016 (1619 vs. 1750). Whereas compared to 2016, there was an almost 26.6% increase in the number of started apartment constructions (2746 vs. 2187).

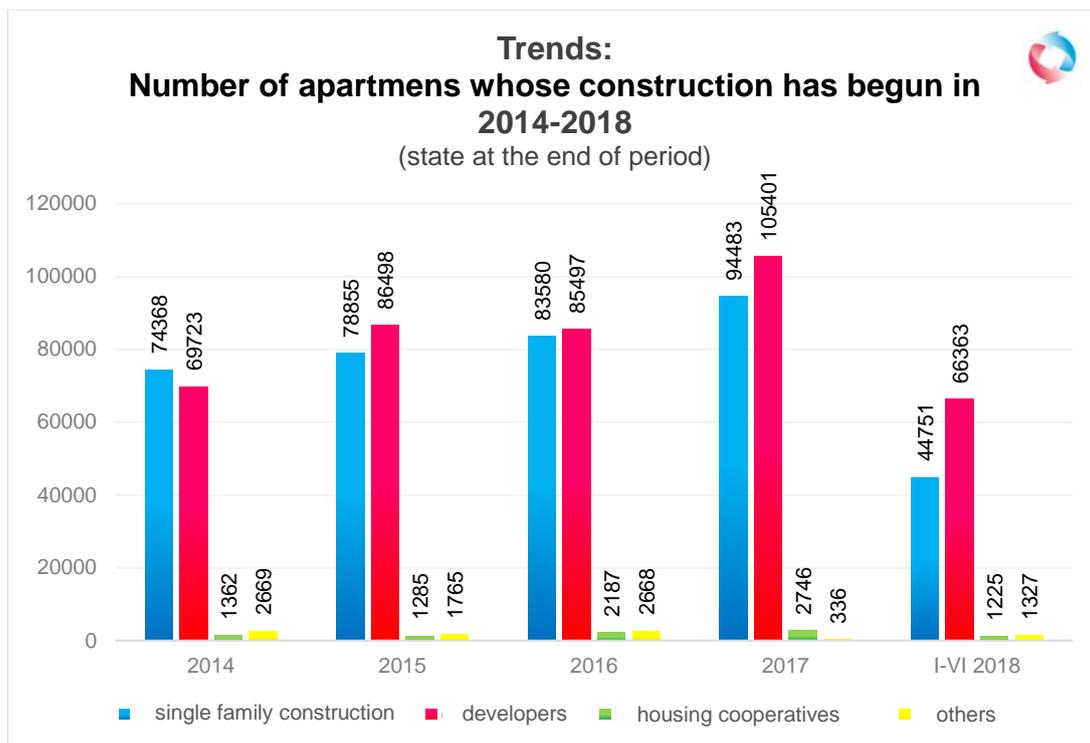


Fig. 6 Number of apartment constructions started in 2014 – first half of 2018, by investor groups (Source: GUS)

The remaining investors (council, social, tenement and company housing) commissioned a total of 3386 apartments in 2017, compared to 3396 a year earlier, which means, more or less, the same result as in 2016, of which council housing commissioned 1760 apartments (1746 a year earlier), tenement – 1484 apartments (1340 a year earlier), and company housing – 142 apartments (310 apartments a year earlier). In this investor group, the number of issued permits for building apartments increased by 13.2% (5210 vs. 4601 in 2016), and the number of initiated apartment construction rose by 26% (3360 vs. 2668 in 2016).

Significant increases in the residential housing are not caused by some new apartment-building programme financed by bank loans. The Apartment + programme, held under the auspices of the former Ministry of Infrastructure and Construction, was presented in the second half of 2017, with a prospect for implementation only starting from 2018, and so far, half-way through 2018, no spectacular results of implementing this programme can be seen. New investments are financed mostly with cash by individual investors, who consistently take their savings out of banks and invest them in walls. It is a certain phenomenon on the European, or even global scale, where most apartments are bought for bank loans, whereas in Poland we have a crop of properties purchased for cash. This situation notably translates into the results of internal consumption, which in turn contributes to the relatively high general economic performance. Two reasons influence this. One of them is the interest rate on bank deposits, which has reached a level so low that the catchphrase of investing in apartments for renting out is now popular, irrespective of the increasing supply of such premises, with

simultaneous lack of actual premises of a significant influence of demand on the lease market. But the situation in the rental market since the beginning of 2018 indicates that this demand still exists, despite so many apartments commissioned for rental purposes. The second reason is still the uncertainty of the development of geopolitical situation and the internal situation in Poland, prevailing among the middle class in Poland. One should remember that small investors who are the customers of developers are mostly of middle class, who treat the current authorities with reserve and believe the activities of the current government very similar to the times justly gone 30 years ago, hence the uncertainty and limited trust regarding the future of the economy and law etc. in further time perspective. They assume that in the case of any turbulence, a bank will not guarantee safety of the savings deposited in the accounts, thus the escape “into walls”. Tendencies of this sort were already visible in 2016, when the boom of buying from developers started, which was not yet visible at the finishing stage of the works.

3 Market growth in selected product groups in Poland in 2017

The year 2017 was exceptional for the entire installation and space heating industry in Poland as a whole. Such a positive market situation both in 2017 and since the beginning of 2018 appeared in Poland for the first time in many years. This was influenced by the sales dynamics both in the segment of the so-called new installations, and in the segment of the so-called replacement market, which earlier traditionally shared their shares relatively by half, with a certain, several per cent difference in favour of either party, depending on the market situation. Whereas in 2017 and since the beginning of 2018, there has been a visible, constant increase in the market of replacing old boilers with new ones. One of the reasons behind this, as described earlier, are very high increases in the number of finished, commissioned and constructed apartments. According to information obtained from the market participants, the first quarter of 2017 in the sales of space heating appliances and fitting elements was rather average and did not forecast spectacular rises, which allowed to achieve high sales results in the entire 2017. In the 2nd and 3rd quarter of 2017, there was a certain breakthrough, which resulted in significant sales increases for practically all the manufacturers. This situation, unprecedented in many years, caused certain doubts in the industry and, as a result, enforced a verification of the sales data coming from the market. The verification action was also caused by a rather high discrepancies in the results, regarding sales performance at the manufacturers and in distribution channels. The degree of increase in the turnover for the industry, from the perspective of the preceding years, caused a certain incredulity regarding the reliability of the information collected. This situation enforced additional, detailed verification of the data directly at the market players, where practically everyone confirmed the results achieved, which had been declared earlier. The 4th quarter of 2017 in the industry was treated with more composure, and the significant rises were treated as a phenomenon reflecting the current market situation and the possibilities of using its potential to improve the companies' results in the perspective of result for the entire 2017.

The growth tendency of such magnitude recorded in 2017 was influenced by a series of factors. One of the primary reasons behind such a market growth was certainly the increase in the number of new constructions and issued permits for residential housing, which was already indicated in 2015 and 2016. Assuming a construction cycle of 18-24 months in the case of developers and a slightly longer one of 2-3 years in the case of individual developers, the current results are actually a reflection of an increased demand for space heating devices in the so-called new installations. A greater number of commissioned apartments means a higher demand for space heating system components, including heat sources. Again, there are more and more signals of support for solutions which prefer the use of system heat as the primary heat source, this time in the context of struggle against smog. As far as this is justified in strictly urbanized city areas, in the case of single-family houses or smaller, multi-family

buildings away from city centres, where the district heating networks still do not have sufficient coverage, one may challenge the reasons behind the attempts to apply pressure via legislative means, for one or another way of providing buildings with heat. Earlier, these opinions were justified with energy efficiency, now they are justified by the need to fight smog. It seems that a better and more practical solution would be to let the investor decide on the choice of the method of heat supply, as long as the system they choose does not contribute to low emissions and is energy efficient. Solutions of this type underwent a certain boom in 2017. It is impossible to build infrastructure for district heating networks in such a short time, and houses must be heated before winter, which in many cases would cause an increased demand for individual heating appliances, against the pressure from the district heating lobby. It should be emphasized that the space heating sector in Poland has enough potential for both system and individual heat, without the need for provoking new, unwholesome competition.

2017 also saw a series of investments in multi-family housing, based on heating with medium-capacity gas boilers. There is a noticeable trend for replacing high-capacity efficient appliances with cascade systems, based on condensing wall-hung gas boilers.

Apart from a significant increase in the number of commissioned apartments, which directly translates into a higher demand for space heating boilers, the sales results were even more influenced by the so-called replacement market, caused by the need to replace old boilers with new ones, as part of preventing low emissions on the local level. There were numerous local programmes intended to prevent low emissions, including support programmes at the commune level, using EU funds as part of RPO (Regional Operational Programs) and support programmes as part of PONE (Low Emission Limit Program). It should be emphasized that the local programmes for the betterment of air quality are financed mostly from EU funds, with about 75% of their usage being left to decide for local governments. Of course, these funds are not utilized equally in individual regions of Poland. In many regions of Poland, numerous support programmes emerged, based on the EU funds, intended to restrict low emissions by replacing old boilers with new ones. This market is highly dispersed. There is no central database for this type of programmes, which is why their effectiveness may only be ascertained upon directly contacting the interested parties, residents or people who provide heating devices to one commune or other. Unfortunately, in the case of solid fuel boilers it is common for old boilers to be replaced with new ones, albeit with a similar level of harmful substance emission and ability to burn anything that gives fire. In the case of gas boilers, the situation seems simpler. Due to the regulations of the ErP directive, since September 2015 only condensing boilers can be put on the market, which is a very good, simple and efficient solution that eliminates such practices in the case of gas and oil boilers. Therefore, wherever possible, the investors have already taken to this solution and replace old, conventional boilers with new, more economical condensing boilers, which apart from much lower gas consumption – also cause much less substances to be emitted into the atmosphere in the combustion process. The district projects, intended to restrict low emissions, stimulate the market and in the

entire 2017 had a significant impact on the increased boiler sales volume. Increased customers' awareness in the scope of harmfulness of low emission is a very important issue. In turn, the existence of the district support programmes reduces the amount of smog coming from coal/rubbish boilers and old, atmospheric gas and oil boilers. Regrettably, the district programmes are usually oriented only on delivery, after which the customer-beneficiary of such a programme must independently find a fitter to install the device, which could cause issues. It is positive that this situation also gives employment to small fitting companies. A certain negative phenomenon from the perspective of the Country, as well as fair competition, is that often such companies operate in the grey area of the economy, as the end customer usually does not require an invoice for the installation works. Therefore, such programmes should not only require an invoice for the device, but also for its installation.

Another problem noticeable in the market is the diversity of rules and premises of these programmes. This often causes misunderstandings in the market, as with similar borderline conditions, adjacent communes may have different requirements concerning the technological conditions which the heating devices must meet in order to be eligible for competitions and tenders. Sometimes, the differences in requirements are incomprehensible. This is why the Association of Heating Appliances Manufacturers and Importers [SPIUG] has taken the initiative to standardize such requirements nation-wide, in order to ensure transparency of the tender procedures. The anti-smog activities resulted in a great growth in the replacement market, which also greatly contributed to the increased sales of heating devices in 2017. For the first time, the replacement market gained a visible advantage over the new boiler installation market. It is assessed to have gained a 65-70 % share. For comparison, for many years this division was relatively equal and fluctuated at about 50%, with 5-10% deviations to either side. Another reason behind such significant sales increases in the installation and heating industry in Poland in 2017, directly related to the replacement market growth, were the expected and gradually implemented restrictions in the legal regulations, intended to limit the low emission, mainly on the local scale, in the form of anti-smog resolutions legislated by local governments, as well as declarations and centrally-initiated activities, e.g. in the form of removing obsolete, solid-fuel boilers from the market. The discussion of this issue, along with the implemented activities, started to motivate the investors to modernize the heating systems they already had, including to replace old heating devices with new ones. The phenomenon of growing social awareness of the hazards caused by low emission may but please, yet there is still a lot to do in this area, particularly as even the short time perspective has already shown that the implemented regulations require further amendments and consistent executive provisions.

In the case of new, individual gas heating systems, more difficult access to gas networks could be an obstacle, which may seem irrational. Nonetheless, gas companies have a significant or total share of the State Treasury, which is why the last two months saw notable staff rotations in these companies. This resulted in a temporary halt in the investments and often

prolonged time of waiting for the gas network terminal to be made, in order to connect the heating system. Luckily, PSGaz (Polska Spółka Gazownictwa – Polish Gas Company) announced a project for developing the gas supply service in the country, based, among other things, on local hubs to which natural gas is supplied in liquid form and where the gas condensation process is reversed. The resulting gas is to be distributed via local gas networks to the consumers. Thanks to initiated information campaigns intended to restrict low emission, there is also an increased interest in modern heating technologies, including OZE [RES - renewable energy sources] – both heat pumps and solar collectors, although the latter are more visible in district tenders, organized as a result of good practices with such installations in the same commune or “at the neighbour’s”, particularly in the Eastern Poland. Anyhow, the downward trend in the case of solar collectors has been stopped, as evidenced by quite spectacular increases in sales since the beginning of 2018.

In 2017, the construction, including the installation and heating industry, came across new problems related to the upturn in the industry. These include visibly growing costs of materials as well as shortage of qualified workforce, which is currently the most severe. Despite a greater demand for construction services, many companies had problems with performing contracts, due to workforce shortage. This shortage cannot be filled with the inflow of workers from Belarus and Ukraine, although there are more and more fitters coming from these countries. In the space heating industry, the issue is not as noticeable as in the general construction industry, although since the beginning of 2018, the fitters have their schedules filled for several months in advance. Certain concern in the installation and space heating trade in 2017 existed in relation to new financial regulations, related to the introduction of the so-called reverse VAT. The need to wait for VAT returns in the case of many companies caused problems with financial liquidity and prompt payment of debts. This problem concerns mainly small and medium companies, acting as subcontractors. Such companies must systematically buy materials, fuel, services etc. including VAT, yet in settlements with general contractors, they have to use settlements without VAT (net). In this case, the only way to retrieve the VAT for subcontractors was to recover it in the tax office. This takes some time, and every invoicing error often causes further delay in VAT return. In the 2nd half of 2017, the situation became a bit more stable in this respect and in the future, the impact of changes to the VAT law should have a smaller impact on the companies’ financial liquidity. The issue of VAT settlement concerns not only contractors, but also suppliers (wholesalers of building and installation materials). After a certain stabilization in 2017, the financial situation in the heating industry seems unstable again in 2018. In the 1st half of 2018, just like in 2017, no spectacular financial arrears were noticed. Nonetheless, payment arrears started to appear again, triggering a quick response from the transaction insurers, who reduced the credit limits. Also, since the beginning of 2018, certain fears in the installation and heating market have returned in the industry, due to new financial regulations related to the introduction of the so-called reverse VAT.

Currently, the building market is different than during the crisis of 2012-2013. Back then, many business entities disappeared from the market. A lot of companies, based on this experience, learned not to accept orders below a certain cost threshold, and to manage the corporate finances properly, also in the scope of investments, etc. Unfortunately, being aware of the risk, many companies still follow the pattern of taking any orders whatsoever, in order to cover their liabilities from earlier investments. A negative balance, particularly in companies which operate locally, are specialized in infrastructural and finishing works, including fitting companies, is regrettably, so far, still a frequent phenomenon in the building industry.

The results of the installation and space heating industry obtained in 2017 were favoured by very good economic situation in construction, both multi-family and single-family, as well as stable situation in the economy. A similar trend has also prevailed since the beginning of 2018, which still translates into good results achieved in the heating industry. According to economists, the perspectives of the global economy are improving. This should be approached with careful optimism. Although at the beginning of February 2018 the global stock exchanges sent signals warning that this year may not be as good, in terms of global economy, one can hope that the increase in the number of building permits issued and commenced constructions in the housing industry recorded in the last two years will let the positive upward trend in the installation and heating market continue, also in the next 2-3 years. On the other hand, one should take into account that the international political situation has been becoming complicated since the beginning of 2018, which can negatively impact the global economy, on which Poland is also dependent.

The course of the year 2017 in the installation and space heating industry was very interesting. After a certain slump, or rather a slowdown in March/April, the year was characterized by a high purchasing activity, both in the field of individual space heating appliances, as well as medium- and high-capacity ones. After a relatively average first quarter came the second one, whose results had to be verified due to doubts regarding their reliability. Such a high divergence could have been caused by the fact that with the increasing market acceleration starting from the 2nd quarter, many distributors used the manufacturers' offer to purchase heating devices to be kept in stock, on special, better-than-standard conditions, before the planned price increases. Boilers left the manufacturers' warehouses reaching the distributors' warehouses, which did not reflect the increased market demand. Of course, there will always be differences between the manufacturers' sales result and the distribution channels, due to the delay of sales, nevertheless towards the end of 2017 the opinion on the trend in the current situation for the heating industry was the same for everyone. In the 4th quarter, there were no surprises, as the suppliers had already replenished their stock and could fully utilize the sales potential which emerged by the end of the year.

The general financial situation in the heating industry seems stable. In 2017, there were no noticeable, spectacular financial arrears, although the amendment to the VAT act initially caused certain payment turbulence in some contractors. Traditionally, the primary transaction

factor was the price. There was also a noticeable increase in the importance of the Internet as a tool for finding technical and commercial information in the installation and heating industry. From the fitters' perspective, the entire year was abounding with orders. Until the end of the year, the fitters had so much work there was not enough workforce. The customers were more and more often looking for affordable heating solutions and appliances of good quality, but they were also ready to accept slightly higher prices to buy devices of better quality and functionality, which, consequently, would be cheaper to operate, not just to purchase. The customers were more and more often interested in information about the costs of servicing and spare parts. In 2017, there was a visibly increased interest in photovoltaics as a technology of acquiring solar energy for prosumer purposes, including heating. Also in 2017, there was much more interest in wireless communication and mobile applications for remote control of heating devices. The IoT awareness among customers is growing. There was a noticeable expansion of the boiler companies' offers, with an array of online control devices for heating, e.g. using tablets or smartphones.

To sum up the situation in the installation and space heating market in the 4th quarter and the entire year 2017, the following phenomena can be singled out: staff shortages, wage pressure among employees, as well as in the fitter-supplier-customer relations. Stock shortages were noticeable at the beginning and during the sales season, caused by an increased demand and inspections by various offices, starting from GIOS [chief inspectorate for environmental protection] to tax chambers, which confirmed that everything was in order, but were a burden for the companies in the situation of a heightened sales and installation season. Traditionally, price pressure was visible, particularly after the uncertain, first quarter, but also in the period of an increased demand for the devices. Towards the end of 2017, there was a marked competitive struggle, sometimes in the form of uncontrollable price reduction particularly on investment, under the slogan of fighting for the so-called „market shares”, which in long term give the companies nothing but a drop in margin and the need to make up for the margin with turnover, in order to fulfil the turnover plans imposed by the HQs. Another thing noticeable in 2017 was further, slow consolidation of the distribution structures, but maybe apart from a single case, there were no significant changes in the case of market players.

3.1 Wall-hung gas boilers

Since 2016, the market of wall-hung gas boilers has been practically dominated by condensing boilers. This is the result of implementing – in September 2015 – the requirements of the Ecodesign and the associated EU orders to the ErP directive, which are supposed to prohibit or severely restrict the possibility of marketing any boilers other than condensing. In 2017, starting from the 2nd quarter, there was a noticeable, dynamic increase in the sales of wall-hung gas boilers in Poland, caused by the aforesaid factors. This tendency has continued into

2018. In the entire group of wall-hung boilers, the growth scale was about 28% for the entire year, compared to 2016.

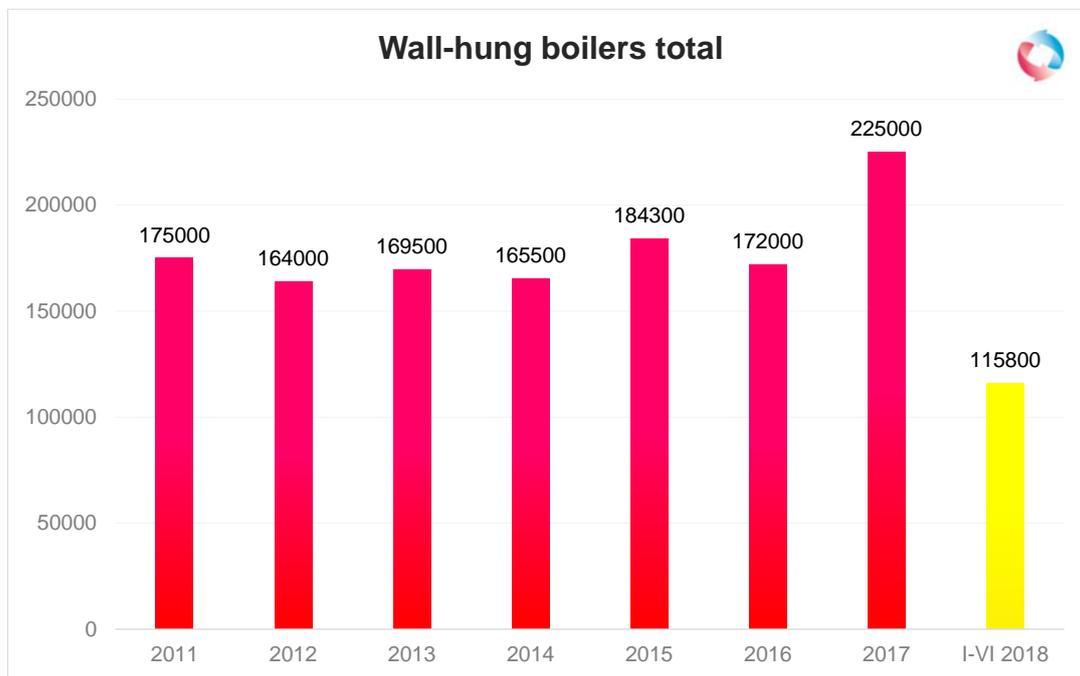


Fig. 7 Sales of suspended gas boilers in 2014 – first half of 2018 (Source: SPIUG study)

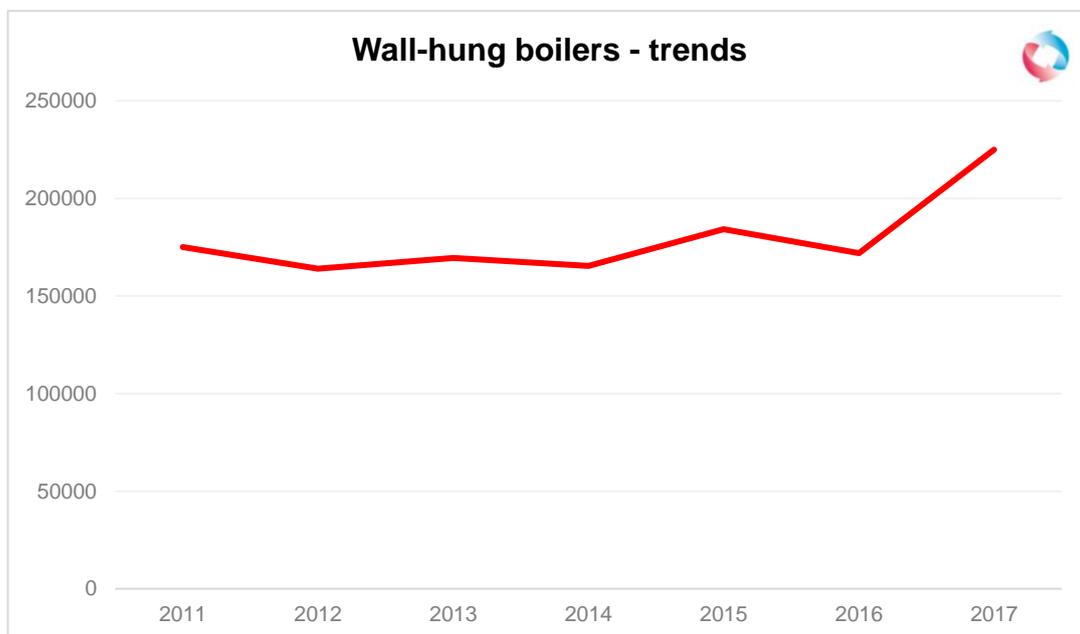


Fig. 8 Sales of suspended gas boilers in 2014 – first half of 2018 – trend (Source: SPIUG study)

3.1.1 Conventional wall-hung gas boilers

Following the implementation of the Ecodesign and the last stock replenishment in 2015, there was a noticeable, month by month decrease in the sale of non-condensing boilers, although spectacular drops occurred at the turn of 2015 and 2016. The sales volume stabilized at a relatively low level and with a slight downward trend, which started to disappear in the 2nd half of 2017. In the 2nd quarter of 2018, the downward trend stopped completely, even reaching certain growths. More and more manufacturers withdraw these devices from their portfolios. Currently, only several manufacturers offer such devices, to satisfy the demand of the replacement market. Yet, this market segment should be treated as niche. Its share in the group of wall-hung boilers thanks to the demand of the replacement market has stabilized at about a dozen per cent. As far as in 2017 the sales of these appliances stayed at a roughly constant level, in the first half of 2018 the sales increase in this product group came to about 18% after initial drops in the first quarter, coming to about 10%. The sales are directed practically only at replacements, where condensing boilers cannot be installed, or if adaptation of the existing system or building structure would require a lot of money and work. In such cases, the worn-out boilers are replaced with new, conventional boilers of better parameters. Conventional boilers with closed combustion chamber, so called turbo boilers, disappeared from the market almost completely. Conventional boilers are not installed in new buildings, whereas in the replacement market they are inquired about only if, for technical reasons, condensing boilers are impossible or difficult to install. These inquiries are accidental, coming mostly from elderly people in flats. In general, this product group may be deemed decaying, with sales level at a constant, and so far low level.

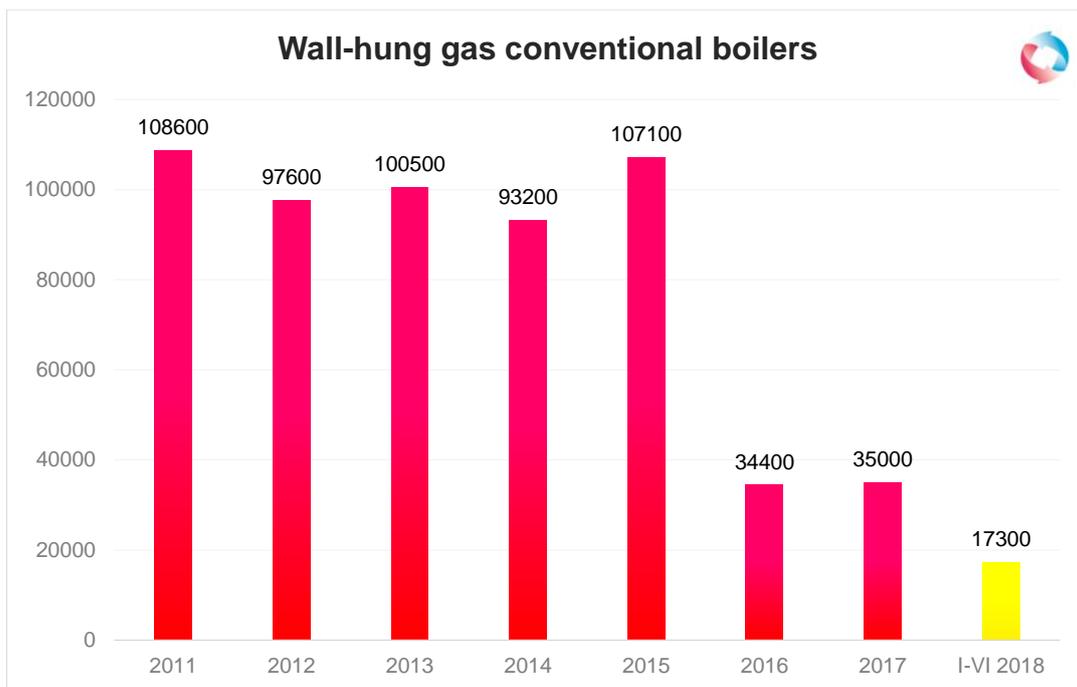


Fig. 9 Sales of conventional suspended gas boilers in 2014 – first half of 2018 (Source: SPIUG study)

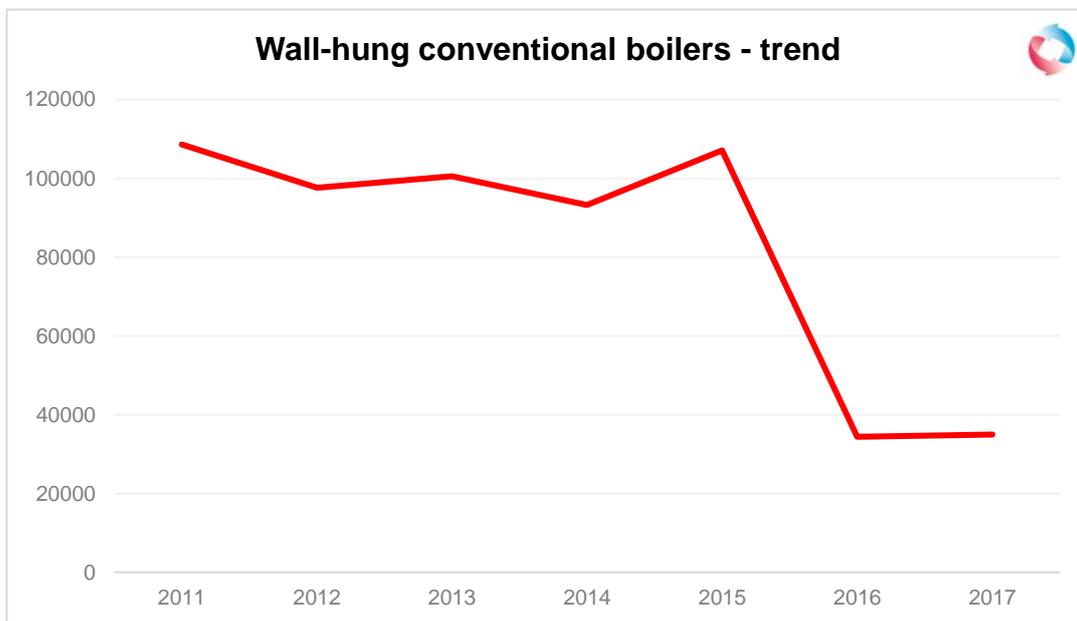


Fig. 10 Sales of conventional suspended gas boilers in 2014 – first half of 2018 – trend (Source: SPIUG study)

3.1.2 Wall-hung condensing gas boilers

In the case of condensing boilers, 2017 was the year of a dynamic increase in the sales of these appliances. The increases were at such an unexpectedly high level that there were doubts whether the sales data collected from the market are reliable and unencumbered with some rough error. Throughout the year, a distinct upward trend became established. The customers accepted the slightly higher purchase price of these devices, compared to the conventional boilers, bearing in mind much lower operating costs in the future. Condensing boilers have become such a popular solution that this product group has also become the field of a pricing war, as is often the case with very popular products. For this reason, in 2017 there was a discernible drop in the transaction prices for condensing boilers, and a certain increase in the share of cheaper boilers with condensing exchanger, so-called quasi-condensers. One positive aspect of this situation is that the Poles are increasingly willing to choose more expensive, but more energy efficient, eco-friendly and energy-saving heating solutions. In the product group of condensing gas boilers, there was the highest, about 35 % increase in the number of devices sold throughout 2017, compared to 2016. The market of wall-hung gas boilers has been virtually dominated by these devices. During 2017, the growth rate in the 2nd and 3rd quarter was so great that verification procedures for the results were taken, in order to rule out the possibility of rough errors in the analyses. It can be assumed that the year 2017 saw a certain breakthrough in the awareness of the Polish customers, who started choosing more expensive, but more economical and low-emission devices. Of course, the market was somewhat coerced into this by the orders of the ErP directive, but as a result the users have taken to this type of heating appliances. The pricing war brought to the market cheaper devices with the so-called condensing exchanger, commonly referred to as semi-condensers, but despite relatively low price, they constitute merely a fraction of the gas boilers sold in the market. Also, in order to reduce production costs, some manufacturers offer alternative low-cost condensing boilers of worse quality, but devices of this sort failed to dominate the market.

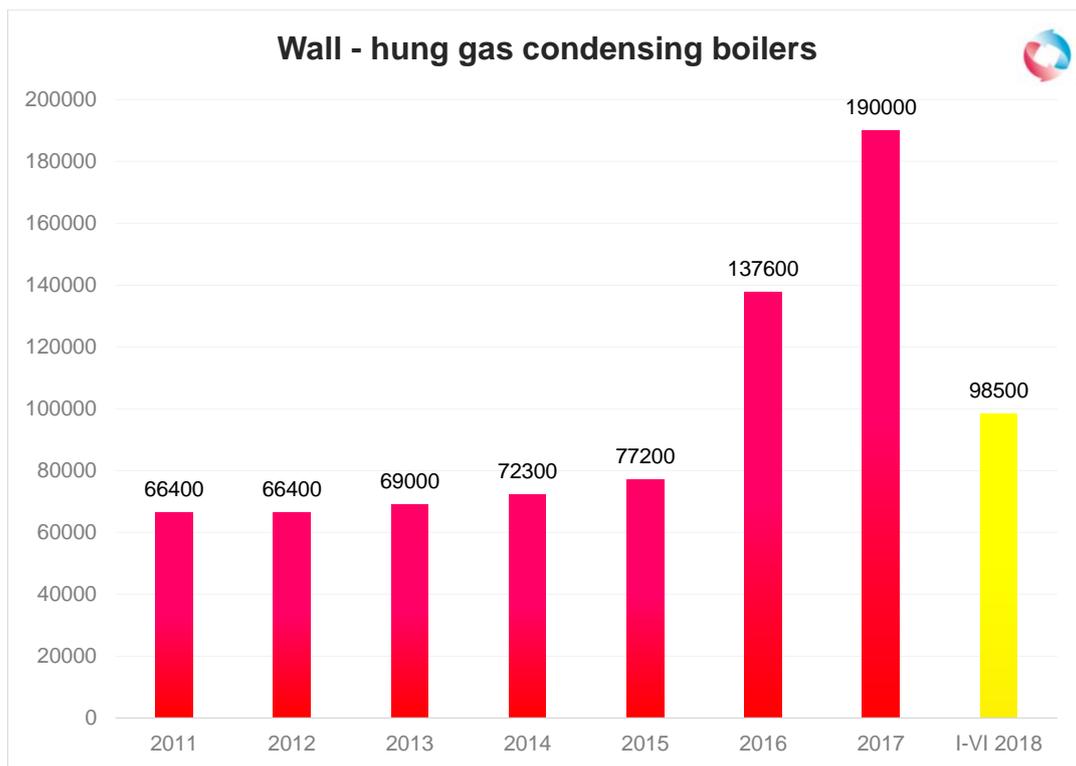


Fig. 11 Sales of condensing suspended gas boilers in 2014 – first half of 2018 (Source: SPIUG study)

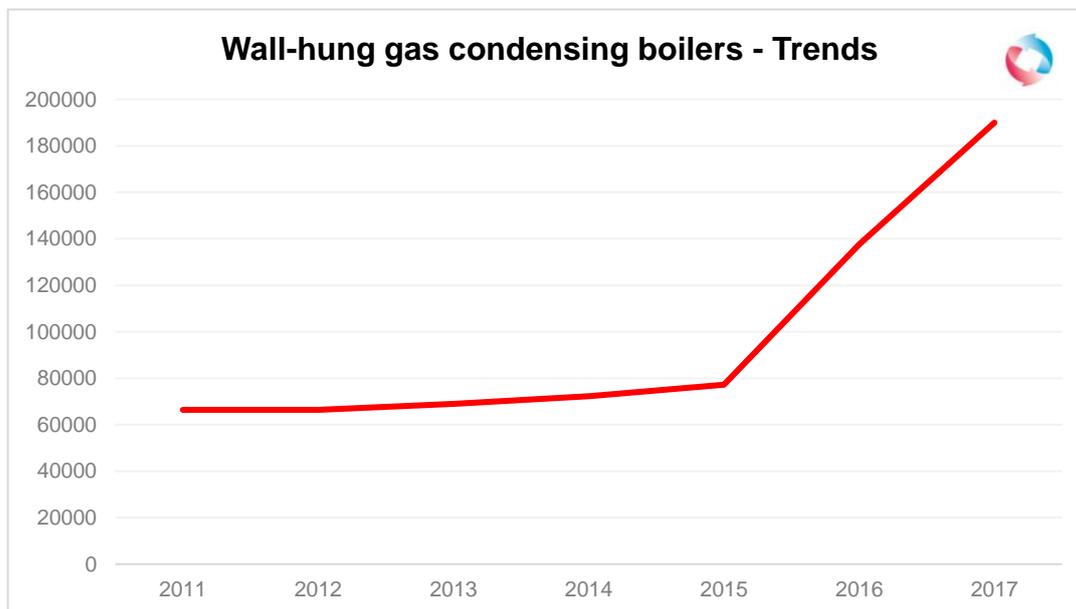


Fig. 12 Sales of condensing suspended gas boilers in 2014 – first half of 2018 – trend (Source: SPIUG study)

3.2 Floor standing boilers (gas and oil)

The floor standing boiler product group includes a broad array of goods, differing in both fuel type and construction. Floor standing boilers can be fuelled with gas, fuel oil, solid fuels, including both coal and coal-derivatives, as well as with biomass of various types. Due to their nature, floor standing boilers can be classified as traditional appliances, the installation of which requires a relatively large space, which is why over the years the market potential for these devices has been in decline, particularly in the scope of gas and oil boilers. Market potential drops in the group of solid fuel boilers were rather connected with switching to other heating devices, of no-emission or with limited low emission.

3.2.1 Floor standing gas boilers

In the product group of floor standing gas boilers, the situation in 2017 seems to remain largely unchanged, although certain market players reported even 10-20% growths, while other reported drops. It should be remembered that with relatively low quantitative potential, sales or lack of sales of even small number of the devices is reflected in quite a significant percentage shift of the sales volume. Therefore, one may assume that the situation in this product group is stable, with a trend for replacing them with cascade wall-hung boiler systems. Theoretically, in the 2nd half of the year, there was a noticeably greater interest in these products, but due to their dimensions, the market potential for this group of appliances stays rather marginal, compared to the entire market potential for gas boilers. In the group of floor standing gas boilers in total, a minor, about 2%, annual sales decrease can be assumed compared to 2016, whereas for condensation boilers there was an increase of about 17% for the entire year 2017, compared to 2016. A similar tendency has continued into 2018. In the first half of 2018, one can assume that the increase in the sales of floor standing boilers reached 23%, whereas in the case of condensing boilers the sales increase for boilers sold in 2017 was almost 30%. It is also worth to mention over 30% increase in the sales of floor standing boilers without burner.

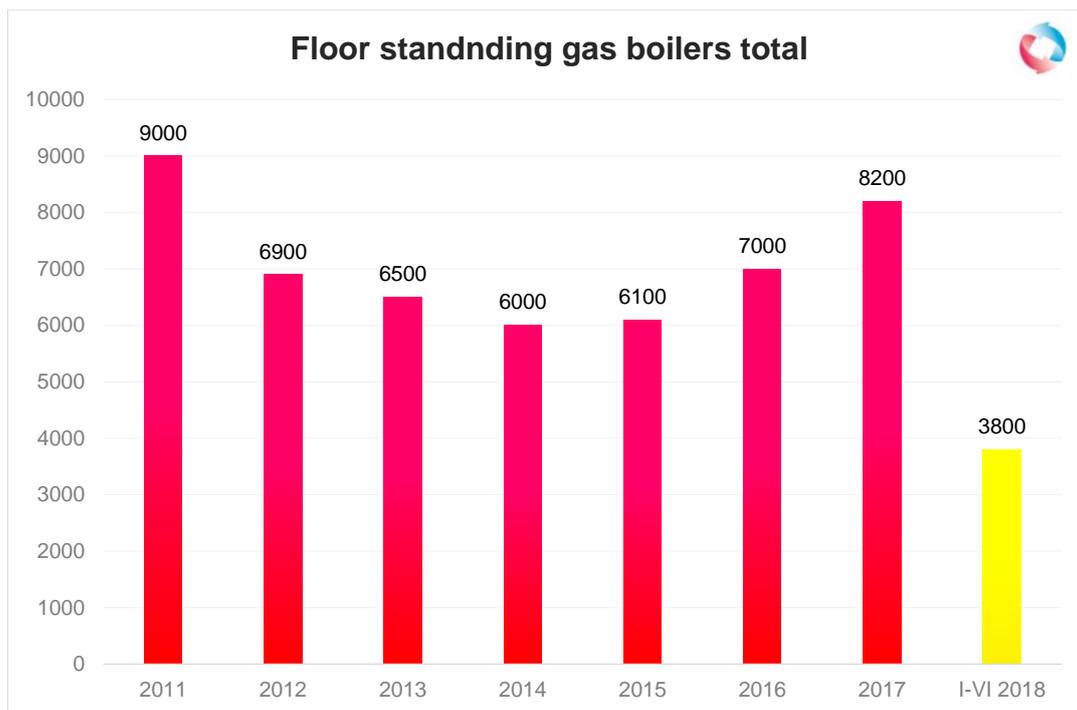


Fig. 13 Sales of floor standing gas boilers in 2014 – first half of 2018 (Source: SPIUG study)

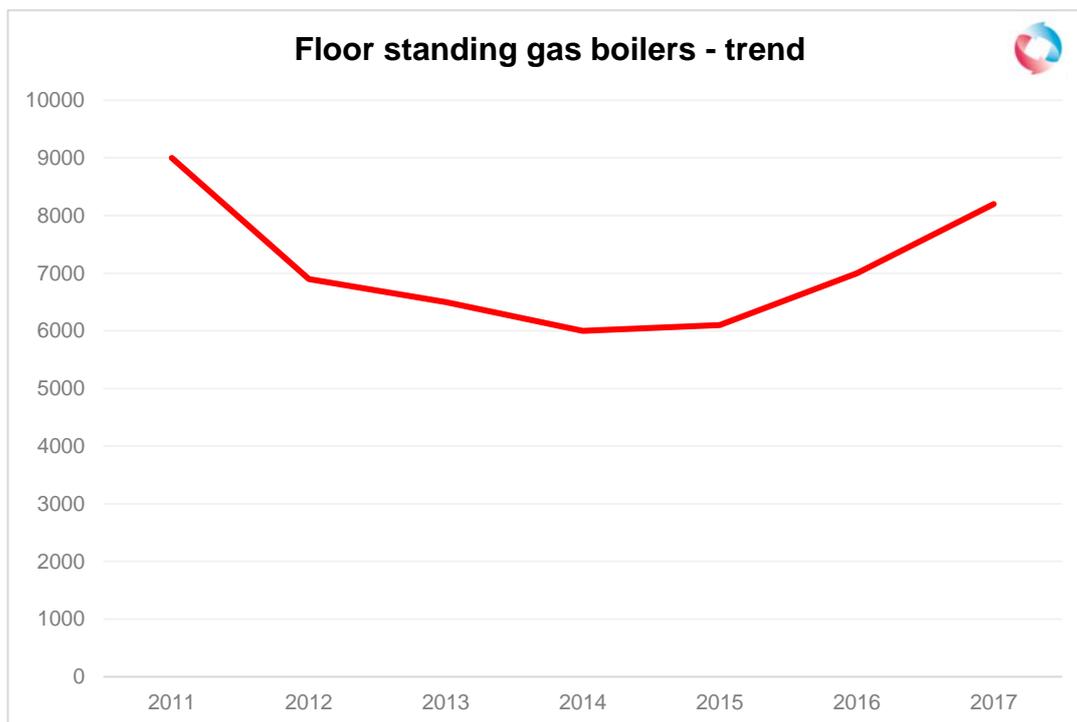


Fig. 14 Sales of floor standing gas boilers in 2014 – first half of 2018 – trend (Source: SPIUG study)

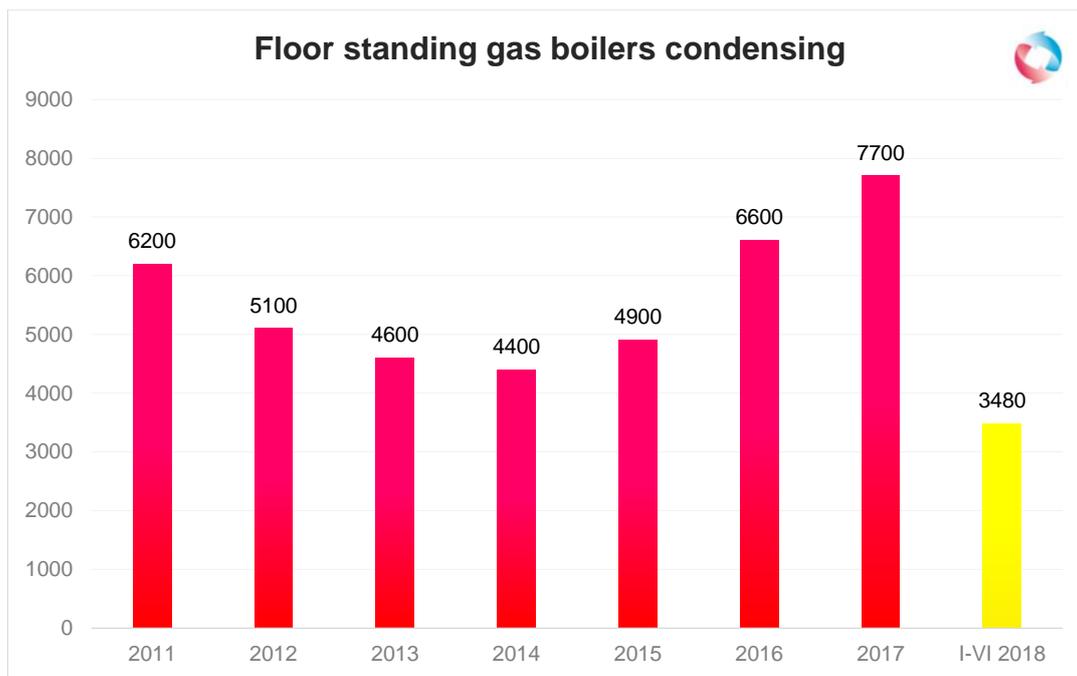


Fig. 15 Sales of floor standing condensing gas boilers in 2014 – first half of 2018 (Source: SPIUG study)

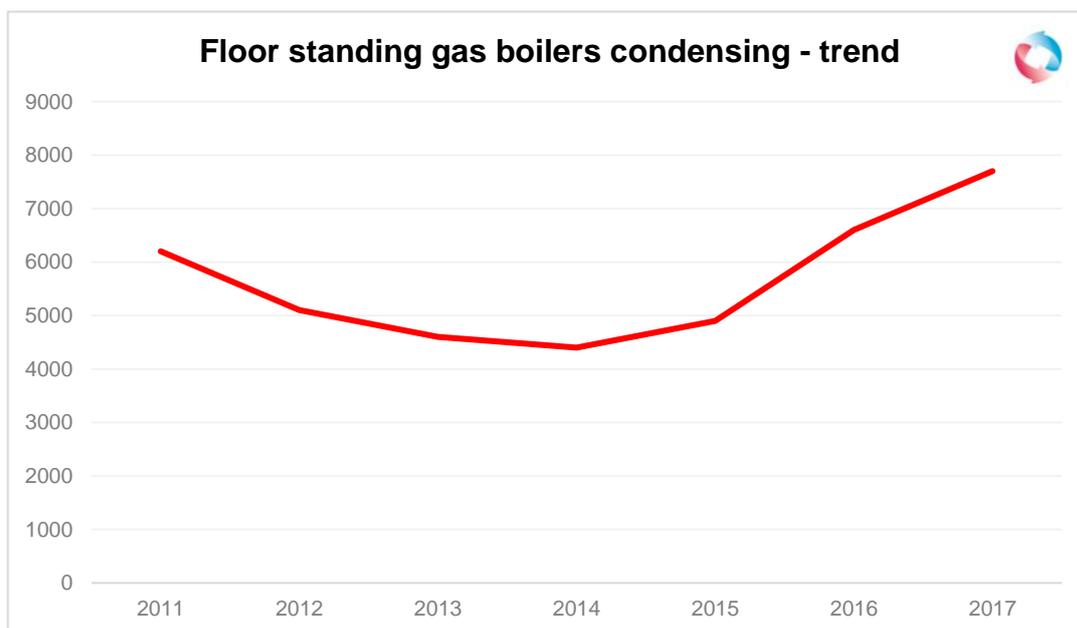


Fig. 16 Sales of floor standing condensing gas boilers in 2014 – first half of 2018 – trend (Source: SPIUG study)

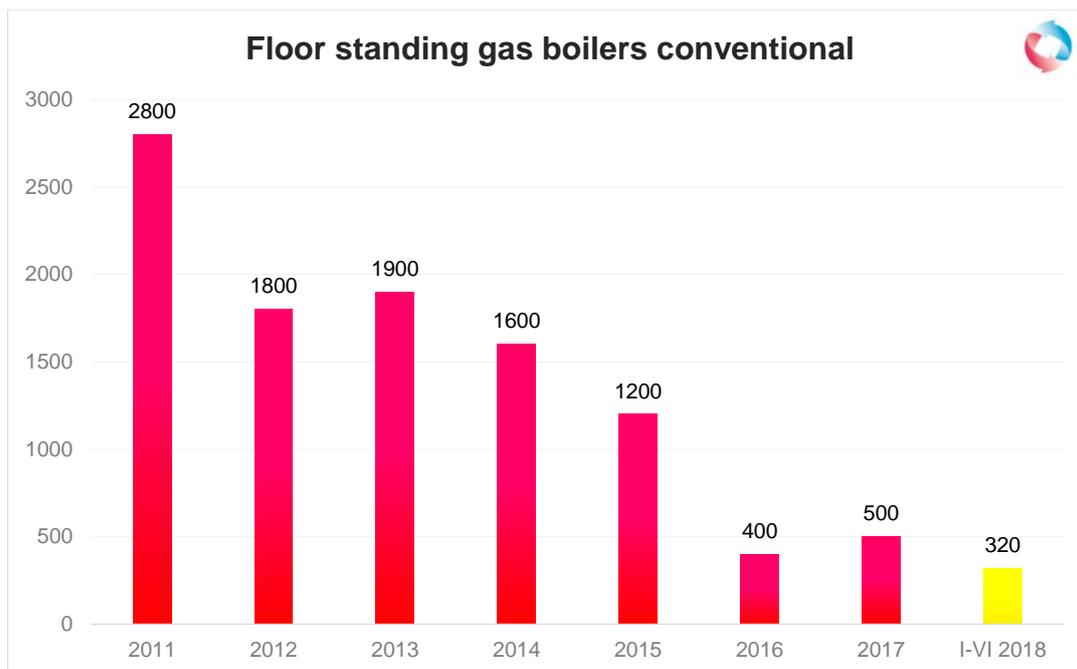


Fig. 17 Sales of floor standing conventional gas boilers in 2014 – first half of 2018 (Source: SPIUG study)

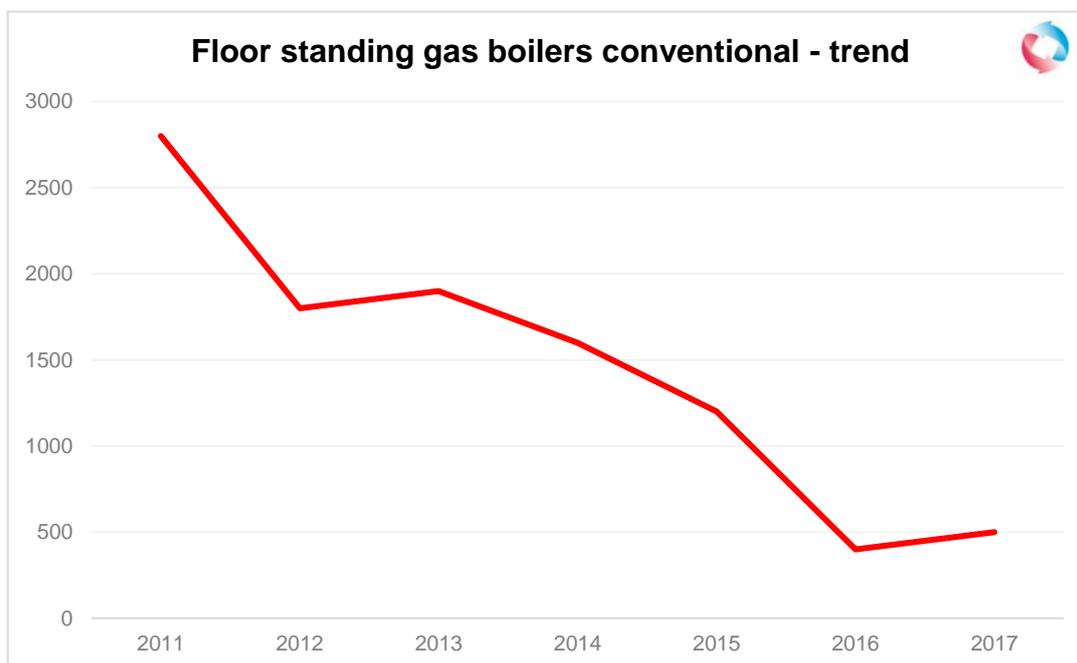


Fig. 18 Sales of floor standing conventional gas boilers in 2014 – first half of 2018 – trend (Source: SPIUG study)

3.2.2 Floor standing oil boilers

In Poland, oil boilers are not as popular as in the Western Europe. This results from a different structure of fuels used for space heating. In Poland, fuel oil was traditionally considered an expensive heating fuel, which several years ago caused a significant reduction of the market potential. Starting from 2016, these devices saw a certain renaissance, caused by – among other factors – increased availability of fuel oil, due to its more affordable price in the entire 2017. In 2017, there was a certain increase in the sales of oil boilers, coming to 11-12%, whereas in the group of condensing appliances this increase was about 20% in the entire 2017. Just like in the case of floor standing gas boilers, there is still no large market potential for selling devices of this type. In the group of oil boilers, after a slight, several per cent increase in sales in the first quarter of 2018, the first half of 2018 saw a decrease of about 10%.

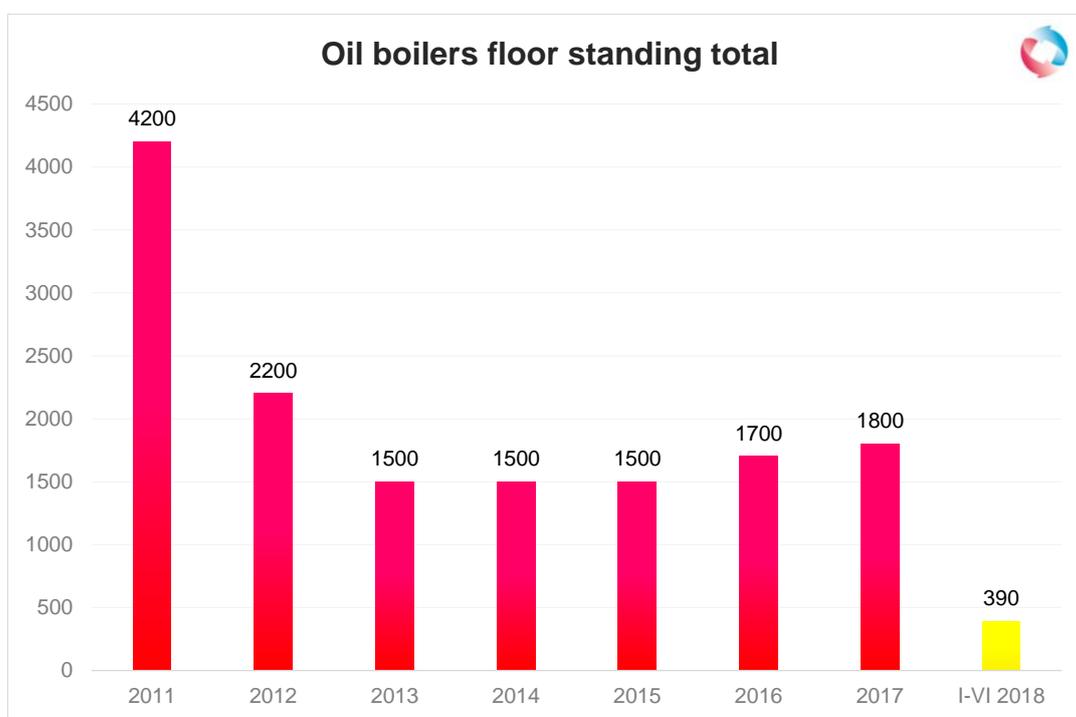


Fig. 19 Sales of floor standing oil boilers in 2014 – first half of 2018 (Source: SPIUG study)

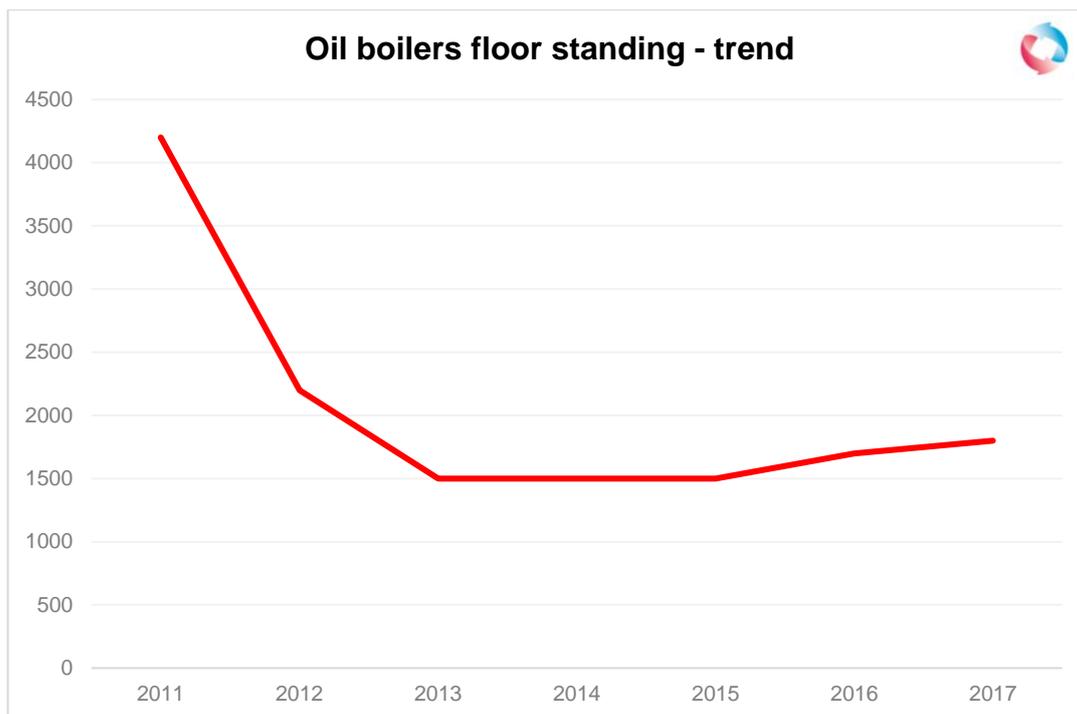


Fig. 20 Sales of floor standing oil boilers in 2014 – first half of 2018 – trend (Source: SPIUG study)

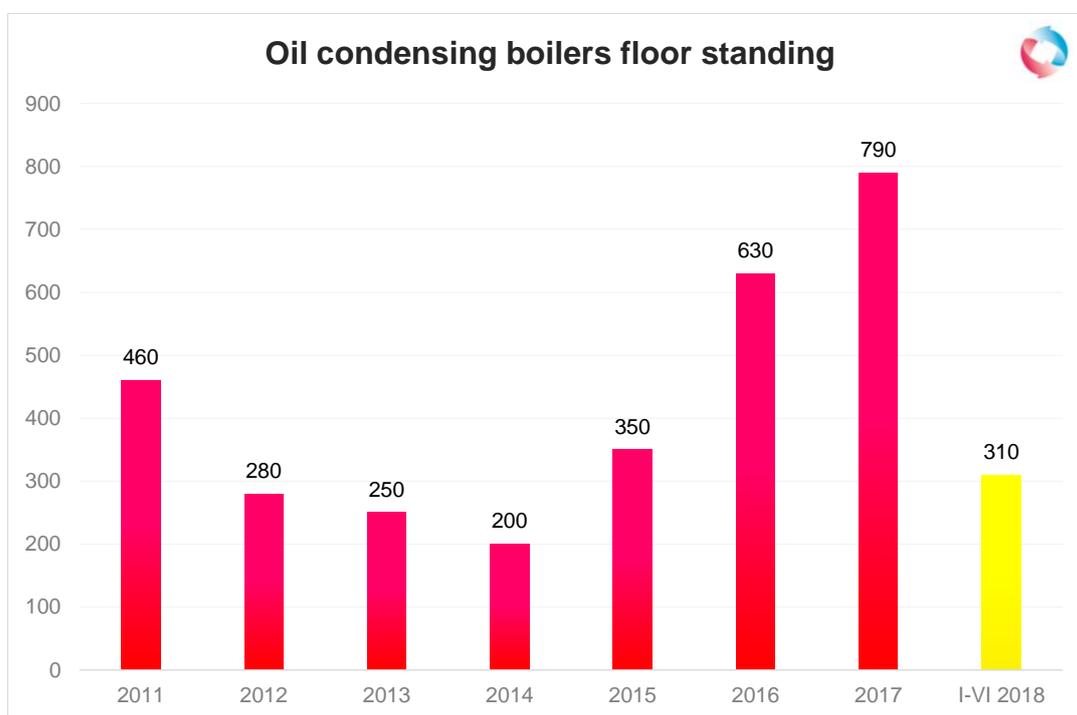


Fig. 21 Sales of floor standing condensing oil boilers in 2014 – first half of 2018 (Source: SPIUG study)

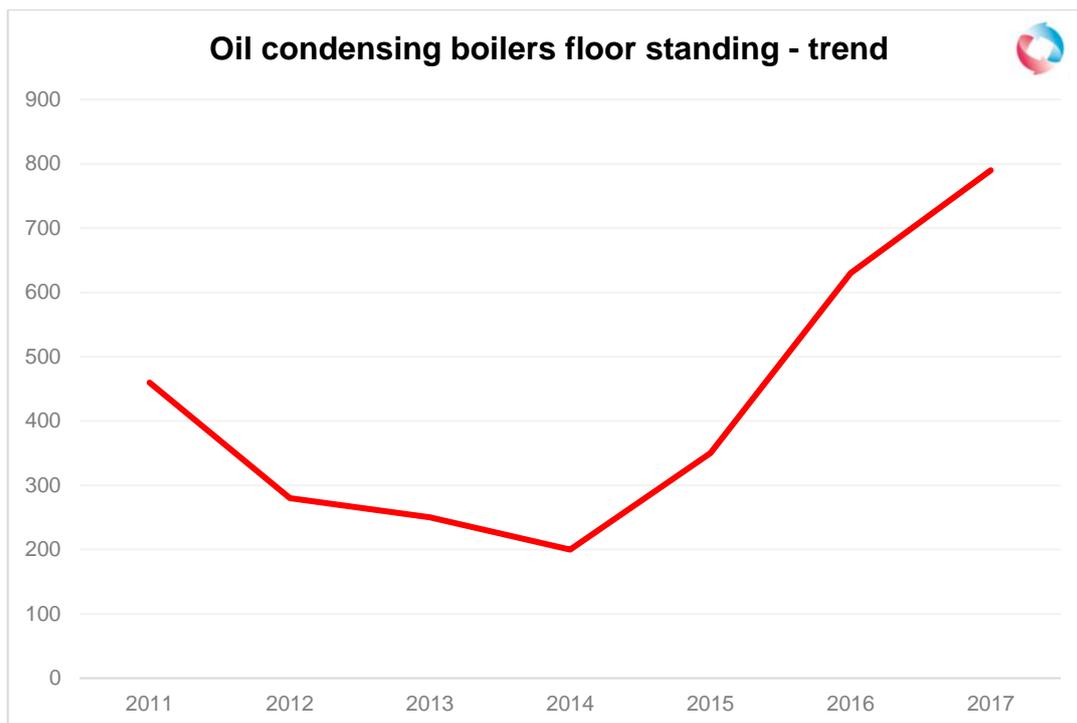


Fig. 22 Sales of floor standing condensing oil boilers in 2014 – first half of 2018 – trend
(Source: SPIUG study)

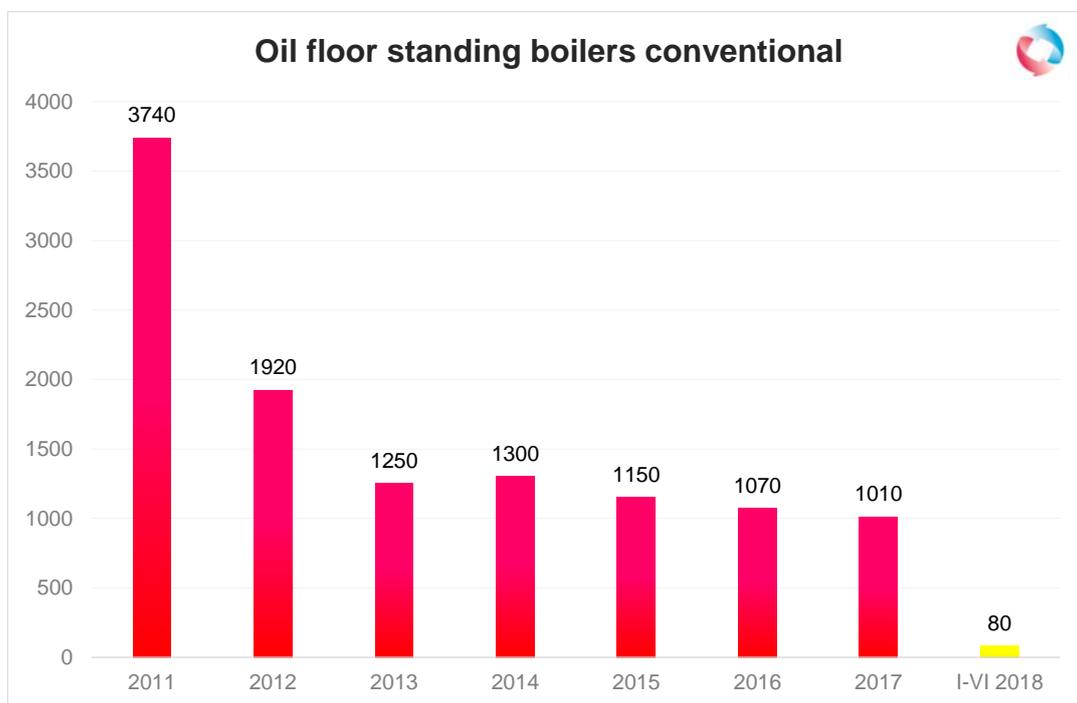


Fig. 23 Sales of floor standing conventional oil boilers in 2014 – first half of 2018 (Source: SPIUG study)

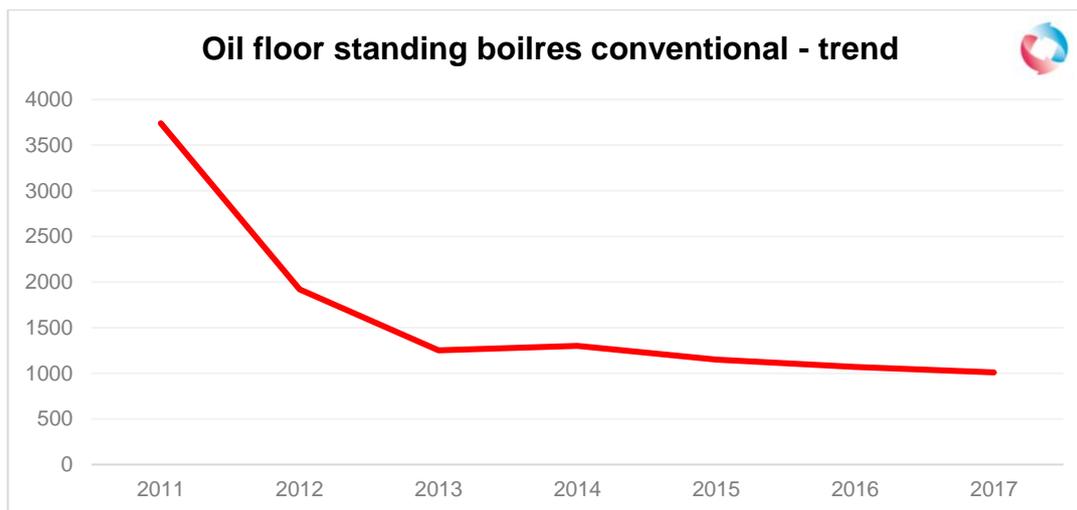


Fig. 24 Sales of floor standing conventional oil boilers in 2014 – first half of 2018 – trend
(Source: SPIUG study)

3.3 Solid fuel boilers

The product group of solid fuel boilers is very fragmented and hard to classify, due to the fuel type and capacities of the appliances offered in the market. The solid fuel boiler group includes appliances with capacity ranging from over ten kilowatts, to several hundred kilowatts and even over 1MW. Due to relatively high number of manufacturers, both professional who manufacture the appliances in modern factories employing several hundred people, and small factories with several employees that make the boilers by handicraft, it is difficult to create any reliable statistics, which is why at this stage we can only rely on market estimates collected directly from the manufacturers and distributors of solid fuel boilers in Poland. A gross majority of these devices are made locally, in Poland. The share of imported solid fuel boilers in Poland is marginal, and mostly applies to specialist boilers for biomass.

In 2017, there were major changes in the legal surroundings of solid fuel boilers. The order of the Minister of Development for solid fuel boilers had a significant impact on the market. This product group underwent significant changes at the end of the year, due to implementation of an order dated 2017-10-01, which increased the emission requirements for this type of devices. In short, it is now only possible to make boilers which meet the requirement of purity class V, with a transitional period granted for selling the devices already made, ending on 30th June 2018. It was a step in good direction, intended to restrict, and consequently stop, supply of heating devices which greatly contributed to the emergence of low emission in the heating process. Because of imperfections of this legal act, within a month some solid fuel boilers miraculously turned – in name only – into “HUW preparation boilers” or “non-wood biomass boilers”, that is into devices which did not fall under the restrictions of the low emission law. The problem of unfair competition caused losses in production companies which took the

provisions and intentions of the order seriously, by shutting down production off any device which did not meet the new requirements. As a result, these companies lost some market shares to the benefit of those manufacturers whose way of doing business is to exploit legal loopholes and meet the demands of this unenlightened part of end customers, who cannot break the habit of stoking boilers with trash and waste fuel, thus poisoning themselves and their neighbours. The result of this situation is that it is now possible to buy boilers which are not subject to the ban, yet pollute the environment in the same way as the banned ones. Currently, in 2018, the authorities are working on amendments, intended to improve the provisions of this order and tighten up the legal loopholes.

This order is still very necessary and is a step in the right direction, which has already influenced the shape of the solid fuel boiler market in Poland. Due to exclusions present in the initial version of this order, it will probably be amended, in order to tighten up this system. Consultations regarding amendment of this order were made in the first half of 2018. They concerned the practice of evading the regulations, as described above. Lack of amendment to this order, eradicating said practices, will in fact make this essential legal regulation become another dead law, which does nothing to eliminate smog in Poland.

As far as market tendencies are concerned, in the case of solid fuel boilers, unlike in the preceding years, the 4th quarter of 2017 saw an increase in the sales, which for most suppliers came to 1/3rd of the annual turnover. This was related to the implementation of the boiler quality order. The distributors stocked up with products which could not be marketed once the new regulations came into effect. It is not a significant rise in sales compared to the analogous period in the preceding years – it is estimated that the about 7% more devices was sold compared to the 4th quarter of 2016, and about 1% more than in the 4th quarter of 2015. The 4th quarter of the year usually means reduced sales, both for automatic and manually-fed boilers. In the 4th quarter of 2017, automatically-fed boilers suffered a certain drop of about 7%, compared to the 3rd quarter of 2017, whereas in the case of manually-fed boilers, there was an increase of over 40 %, caused by the fact that starting from 1st October, in Poland it is no longer to make heating boilers which do not meet the requirements of purity class V, including manually-fed boilers, which induced the distributors to stock up with devices which would be banned from the market starting from 1st July 2018.

The year 2017 was the first to see a more significant increase in the sales of automatic boilers. The sales increase was about 50%, whereas in 2016 this increase was about 40%, and in 2015 - 33%. Better sales results of the automatic boilers could be influenced by the new regulations concerning the quality of the boilers, the anti-smog laws which more and more provinces are enacting, the possibility of obtaining subsidies for replacement of heat sources, as well as the increase in the social awareness. In the 4th quarter of 2017, sales of automatic boilers was estimated to reach over 45% of all the devices, and was about 40% higher than in the 4th quarter of 2016, and about 34% higher than in the 4th quarter of 2015. In the 4th quarter of 2017, the group of automatic boilers suffered a slight decrease compared to the

3rd quarter of 2017, but there were increases compared to the 4th quarter of 2016 by about 30% and over 60% than in the 4th quarter of 2015. Yet, despite the artificial increase in the 4th quarter of 2017, caused by implementation of legal regulations, manually-fed boilers evoke less and less interest.

Generally, in the case of solid fuel boilers, the year 2017 brought a slight increase in sales, by about 5-6% year by year. The market situation after implementation of new regulations requires close scrutiny. The stock of boilers under class V must be sold out by the end of June. Additionally, some manufacturers reclassified the existing boilers which do not conform to the requirements into devices excluded from the scope of the order, by the trick of renaming and changing their purpose. The market expects tightening up in this respect, and is consulting the ministry. Until the regulations are tightened up, by introducing standards for the quality of the fuels used, it will be hard to trumpet a victory of the new regulations, which were supposed to restrict the low emission and anticipate the requirements of the Ecodesign for solid fuels throughout EU.

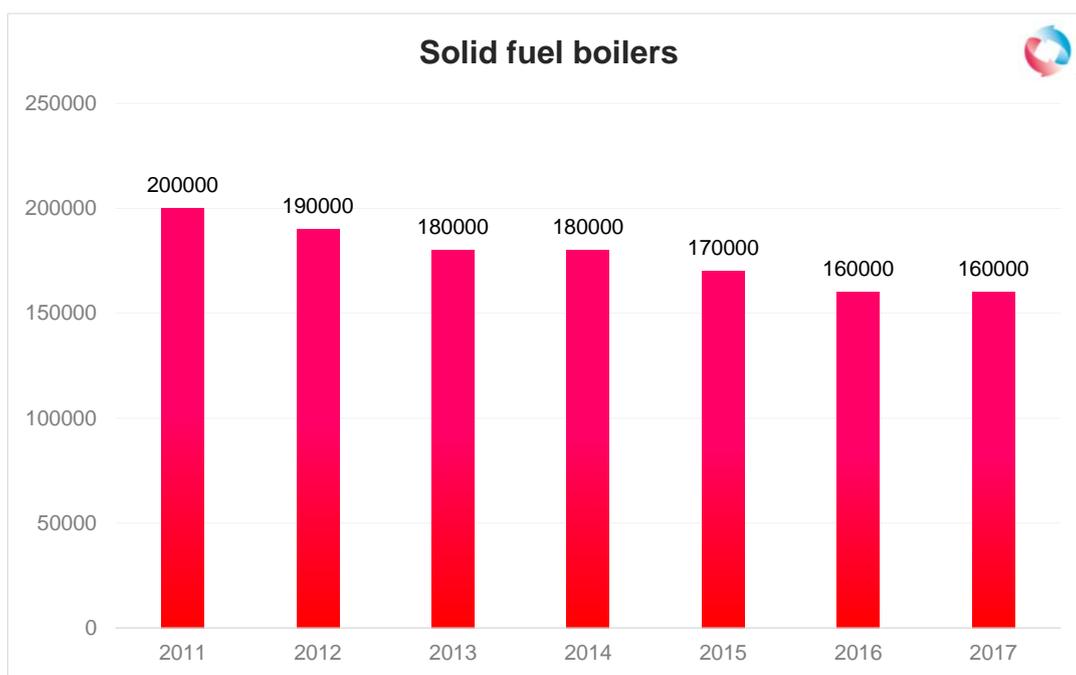


Fig. 25 Sales of solid fuel oil boilers in 2014 – first half of 2018 (Source: SPIUG study)

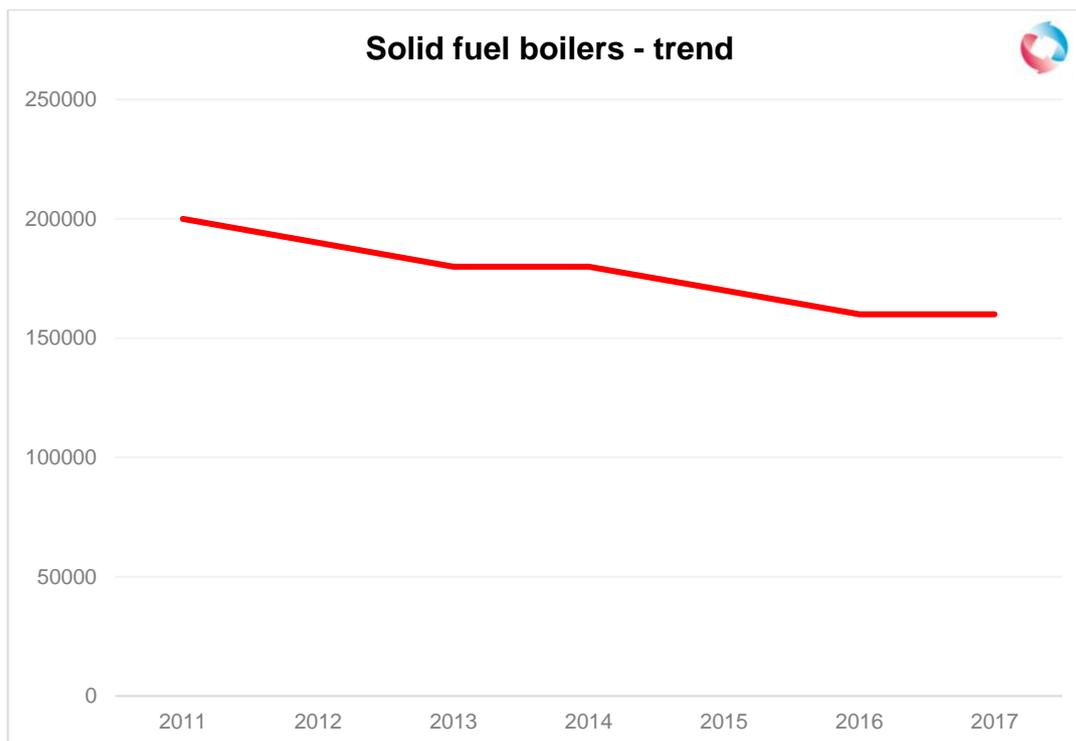


Fig. 26 Sales of solid fuel oil boilers in 2014 – first half of 2018 – trend (Source: SPIUG study)

3.4 Heat pumps

In the 4th quarter of 2017, heat pumps may not have scored such spectacular increases as boilers, yet the rise in the sales of these devices is stable, which forms good grounds for consolidation of this market segment. Of course, the increases are different for various groups of heat pumps, nonetheless also the product group of heat pumps took advantage of the factors which influenced the increased sales of boilers and local subsidies intended to reduce low emission. According to data collected together with PORT PC (Polish Organization for Development of Heat Pump Technology), in 2017, every segment of the heat pump market in Poland grew. The entire market of heating pumps for heating only increased by 30%. A particularly spectacular growth of the air/water heat pumps market in 2017 came to +55% (year by year). According to market analyses of PORT PC, in 2017 the manufacturers and distributors of heat pumps for preparation of warm water sold, in total, about 10% more of these devices than in 2016. In 2017, sales increase for ground water pumps brine/water was estimated at 5% compared to 2016. Ground water pumps still hold a significant share in the market of heat pumps used to heat or cool buildings. In 2017, the increase in the heat pump sales concerned both devices with capacity over 20 kW, and those under 20 kW. The entire market of heat pumps in Poland recorded an increase of about +22%. Observing sales of heat pumps in the year 2010-2017, there is a noticeable, stable and balanced market growth. A certain noticeable phenomenon is also a significant rise in the number of heat pumps in

new single-family buildings. According to PORTPC, in 2017 this share came to 12.5% (every eighth new building). In 2010, PORTPC estimated the share of heat pumps in new buildings at under 3%. It is noticeable that the market of these devices in Poland is the only market in Europe where sales increases were recorded seven years in a row.

Heat pumps are still perceived as a good, yet expensive solution for providing heat, cold and hot utility water. In the group of heat pumps, the largest share is held by air pumps, which are consistently very popular, as well as heat pumps for preparing hot utility water. Ground pumps hold a stable position, but without any spectacular increases. Also, implementation of the act on coolants, which are used in heat pumps, caused significant changes. One needs UDT (Technical Inspection Authority) qualifications for F-gas to be able to buy such a device. This is a major change for the market of cooling devices. In the first half of 2018, heat pumps did not score as spectacular increases as boilers, in many heat pumps groups there were even drops, which resulted in a general drop of over 10 per cent, yet there were groups of heat pumps where high increases in the sales were recorded. These include mainly, just like in 2017, air heat pumps of various types, as well as heat pumps for preparing HUW. In these product groups, the increases reached several dozen per cent. Yet, due to various bases and scales of sales, it is difficult to assess the actual growth rate. For these product groups, it can be estimated at 30-60%. It was quite the opposite for ground and derivative heat pumps, which in the first half of 2018 suffered drops of about 40%.

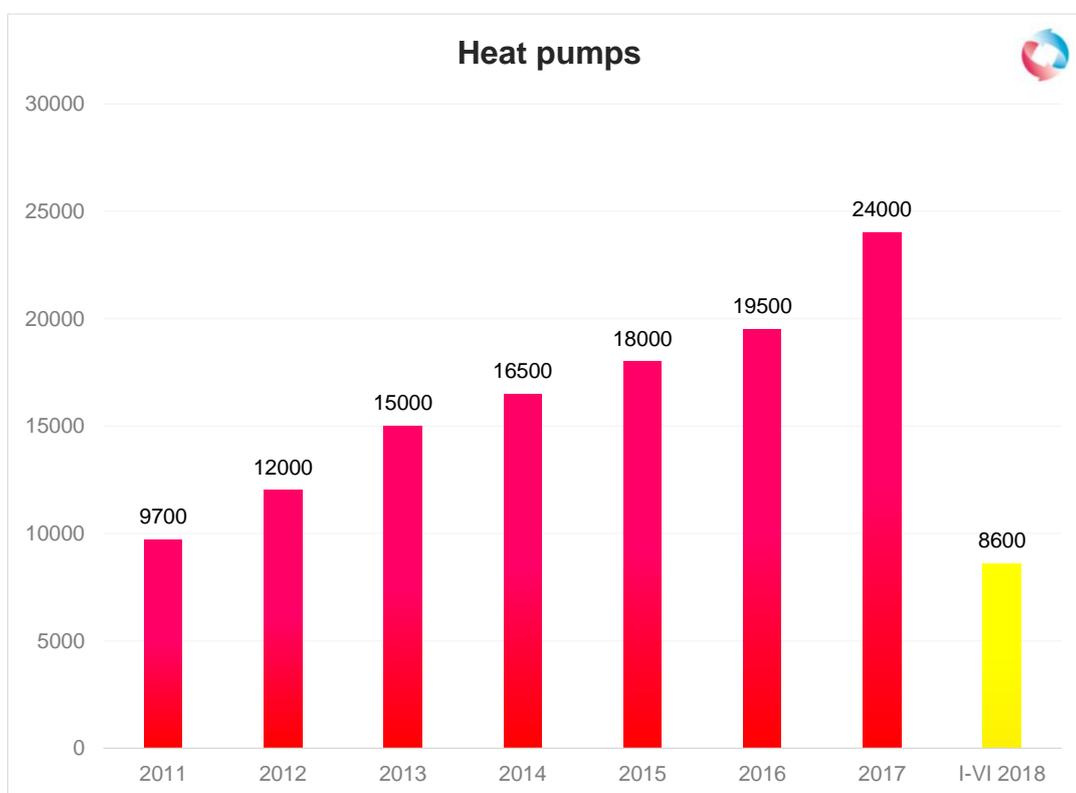


Fig. 27 Sales of heat pumps in total in 2014 – first half of 2018 (Source: SPIUG study)

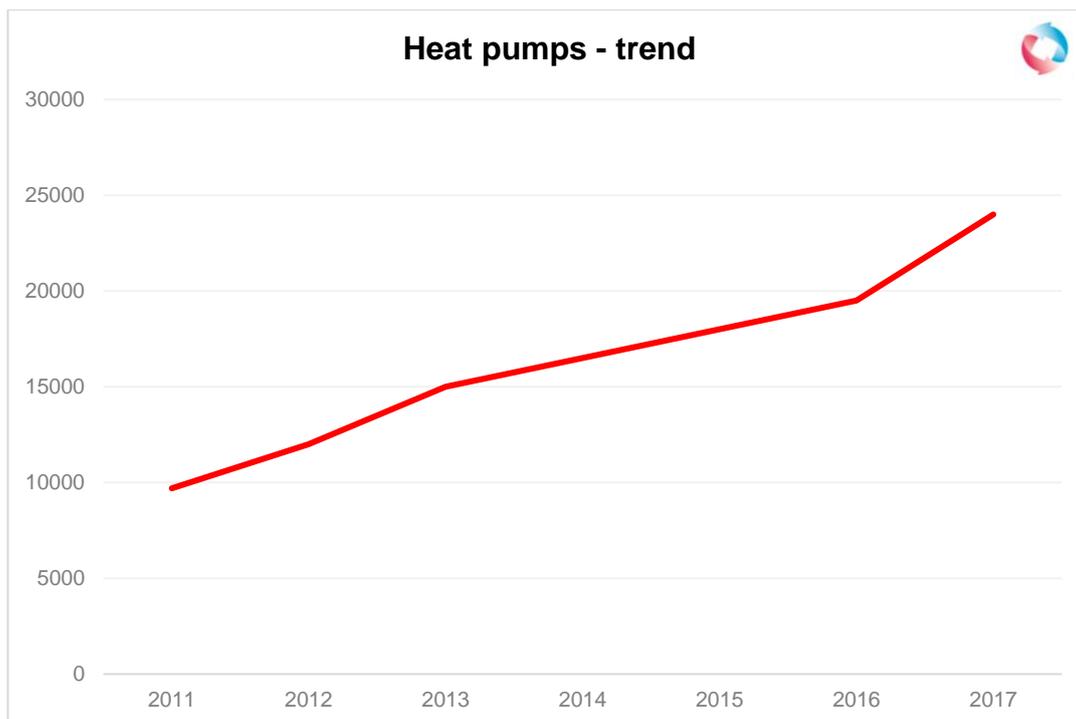


Fig. 28 Sales of heat pumps in total in 2014 – first half of 2018 – trend (Source: SPIUG study)

3.5 Electric heating

Despite high operating costs, electric heating has a stable position in the market of every UE country. One undisputable advantage of this technology is low costs of building the infrastructure (compared to the infrastructure of heating and gas network), particularly in mountainous regions. When planning solutions of this sort, one should ensure appropriate infrastructure in the form of transfer and distribution lines, due to the quantity of electric energy supplied for space heating purposes. Use of electric heating is recommended in all sorts of small building, detached garages, bowers, holiday cottages, buildings heated only occasionally, that is wherever the cost of building a gas boiler room or connecting a central heating network would be uneconomic. Just like in the case of preparing hot utility water, electric power as an energy carrier seems irreplaceable in scattered systems, where there is no possibility of building a gas network, or the operating conditions do not dictate another solution.

Today, heat pumps seem to be the future of electric heating, both for heating water and rooms. These devices have the highest energy efficiency ratings (A++ and A+++), which makes them three to five times more efficient than electric boilers or storage heaters.

Undoubtedly, there is future in using electric energy from renewable sources, both for heating and in hybrid OZE systems, where the electric energy is used to power devices the main power source of which is gas or heat from solar energy or from the surroundings. Use of

electric energy for heating could somewhat solve the issue of excess of energy generated by wind farms in autumn/winter.

As part of the anti-smog activities, at the end of 2017 the Ministry of Energy announced its decision to introduce a special tariff for electric energy for heating purposes. This would be a step in the right direction, yet the solution proposed requires a correction, so that the ministry's proposal would be available to a broader group of recipients and to make this solution actually beneficial for using electric energy for heating purposes.

As far as in 2017 there were no spectacular changes to the sales structure of electrically powered heating devices, in the first half of 2018 it is worth to mention an increased interest in modern, technologically advanced suspended boilers, powered with electricity. This may be a certain aftermath of the media campaign organized by the Ministry of Energy in late 2017, concerning use of electrical energy for heating purposes. SPIUG was an active participant in consultations for the programme of using electrical energy for space heating purposes. Unfortunately, the programme proposed by the MoE, as we remember, was not very beneficial for the customers, but the result of attracting attention to this form of heating was, as it seems, achieved. Undoubtedly, there is an increased interest in modern, suspended heating boilers powered with electricity, which caused an increase in sales of about 15% in the first half of 2018. A similar result was achieved in the product group of storage HUW heaters. In the group of flow-through HUW heaters, the sales in the first half of 2018 are estimated to have increased by about 5%.

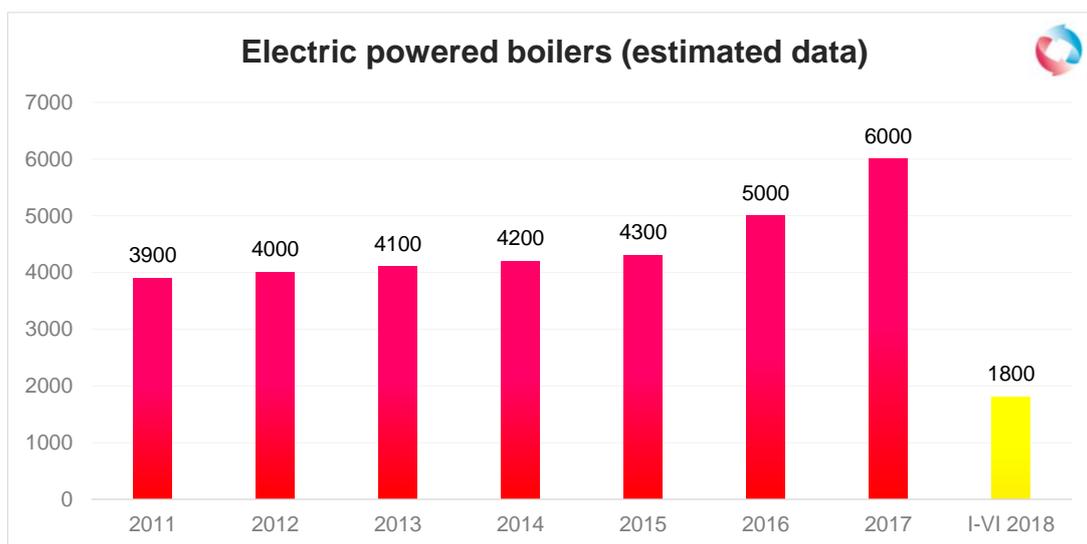


Fig. 29 Electric heating boilers – estimates (Source: SPIUG study)

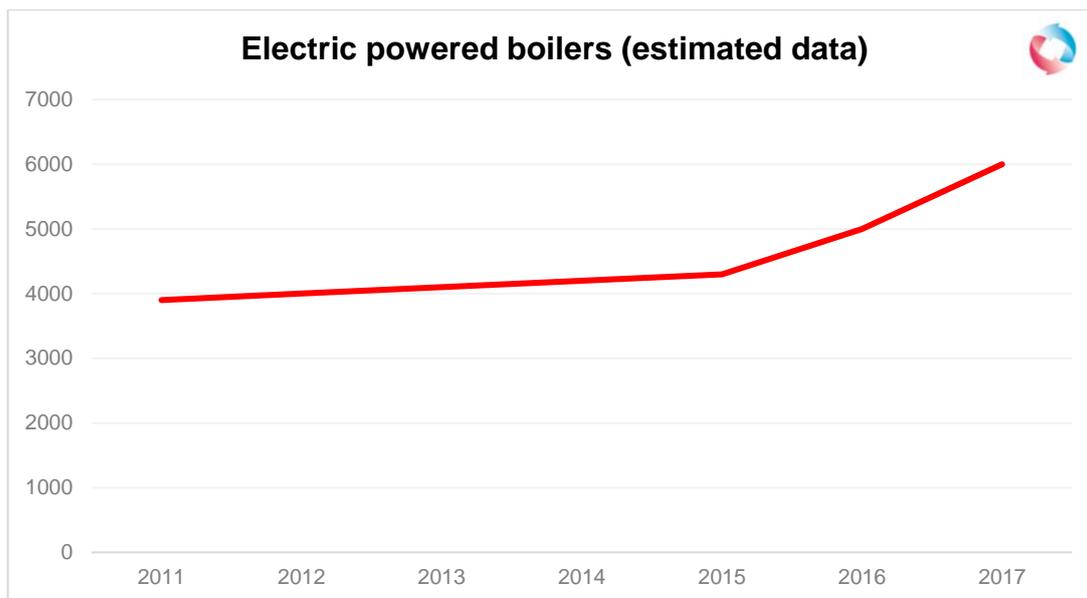


Fig. 30 Electric heating boilers – estimates – trend (Source: SPIUG study)

3.6 Solar collectors

In 2017, the group of solar collectors showed quite a significant discrepancy between the information coming from the market and the statistical data, which required verification. The end of the year is hardly the best season for selling solar collectors. As a rule, this is when contracts are awarded, to be performed next spring and summer. According to the opinions coming from the market, in 2017 there was further, yet minor compared to the preceding years, drop in the sales of systems for individual customers. In 2017, it was not compensated by the increasing deliveries for the so-called district projects, which also supply collector systems to private homesteads.

	Glassless	Flat	Vacuum	Glass in total	TOTAL
2017 Surface of newly-installed collectors in 2016 (m ²)	0	107200	3900	111100	111100
2016 Surface of newly-installed collectors (m ²)	0	111700	3700	115400	115400
Percentage change (%)	0	-4	5	-4	-4
Total surface of working collectors (m ²) at the end of 2017	0	1767700	480600	2248300	2248300
Total surface of working collectors (m ²) at the end of 2016	0	1660500	476700	2137200	2137200

Table 1 Development of the solar collector market in Poland in 2017 by collector type (Source: SPIUG study)

	Swimming pool water heating	HUW prepara- tion	Combined HUW and CH systems	Large systems (50m ² < X < < 500 m ²)	Very large systems) (> 500m ²)
2017 Surface of newly- installed collectors (m2)	0	74	10	12	2
2016 Surface of newly-in- stalled collectors (m2)	2	72	12	12	2
Total surface of working collectors (%) at the end of 2017	2	80	6	11	1

Table 2 Development of the solar collector market in Poland in 2017 by system type (Source: SPIUG study)

	Residential hous- ing – new build- ings	Residential hous- ing - moderniza- tions	Residential housing - total	Applications commercial facilities	Others (in- dustry, net- work heat- ing, etc.)
2017 Surface of newly-installed collectors (%)	17	71	88	10	2

Table 3 Development of the solar collector market in Poland in 2017 by classification of recipients (Source: SPIUG study)

Fierce competition with a limited number of tenders triggers aggressive actions of the suppliers, who decide to reduce the supply chain in order to cut the price. This is unnecessary, and a market structure based solely on tenders fails to guarantee stabilization, despite very high increases in sales recorded in the first half of the year, which should please. There is no stable market base in the form of a retail system via installation and heating wholesale outlets, addressed to individual customers. Distribution networks register no sales at all, or report drops of several dozen per cent. Therefore, to maintain the increases in the sales of solar collectors, the manufacturers must develop a joint strategy of rebuilding this segment of the market. There are opinions that the solar collector market is already growing in the case of district investments on the eastern wall. Results of these activities became visible only in the beginning of 2018, when the contracts awarded entered the stage of performance. A chance for reconstruction and further growth of this market segment are the growth in the installation-heating market, based on anti-smog campaigns as well as PONE and similar programmes, intended to curb low emission, for which the solar collectors are perfectly suitable. Unfortunately, contracts on solar collector systems put out to tender these days, as well as the rules of this procedure, stir up a lot of emotions in the participating suppliers, which hardly favours joint creation of grounds for reconstructing a stable market in this product group. Lack of normal sales to individual customers also does little to heal and stabilize this market segment. Also, there are more and more systems where heat coming from solar collectors is also used for space heating purposes, apart from the traditional preparation of hot utility water. Yet,

there is still no comprehensive support programme for the development of this market segment, which should not be the goal in itself, but a stimulant to achieving stabilization and self-sufficiency of this market segment. Currently, SPIUG is finishing works on drafting a support programme, addressed mostly to individual customers, in order to rebuild this direction of sales and provide an impulse to rebuild the market of solar collectors in Poland. The draft will be submitted to NFOŚiGW (National Fund for Environmental Protection and Water Management), yet it will be up to the decision-makers to hasten the renaissance of solar collector sales in Poland. There are also serious plans of using solar collectors as an auxiliary heat source for heating networks. Such solutions, combined with seasonal heat storages and heat pumps are already successfully used in several European countries. The potential of this market is so high, it is only a matter of time for this market to revive. One should only hope that the collector manufacturers won't give up and weather this difficult period. To sum this market up, it can be assumed that in 2017 the sales slightly lower than in 2016, which still must be verified. Whereas the first half of 2018 brought a certain breakthrough in the sales of solar collectors, resulting from performance of contracts put out to tender back in 2017, where for the first time in three years the sales increased, and significantly. These increases result from contracts put out to tender in 2017 and awarded from the beginning of 2018. Generally, it can be assumed that after several poor years, bordering on market breakdown, the increase in the sales of solar collectors in the first quarter of 2018 exceeded 50%. Such increases concern, apart from flat collectors, also vacuum collectors, although, so far, their share in the total sales of collectors remains under 5%.

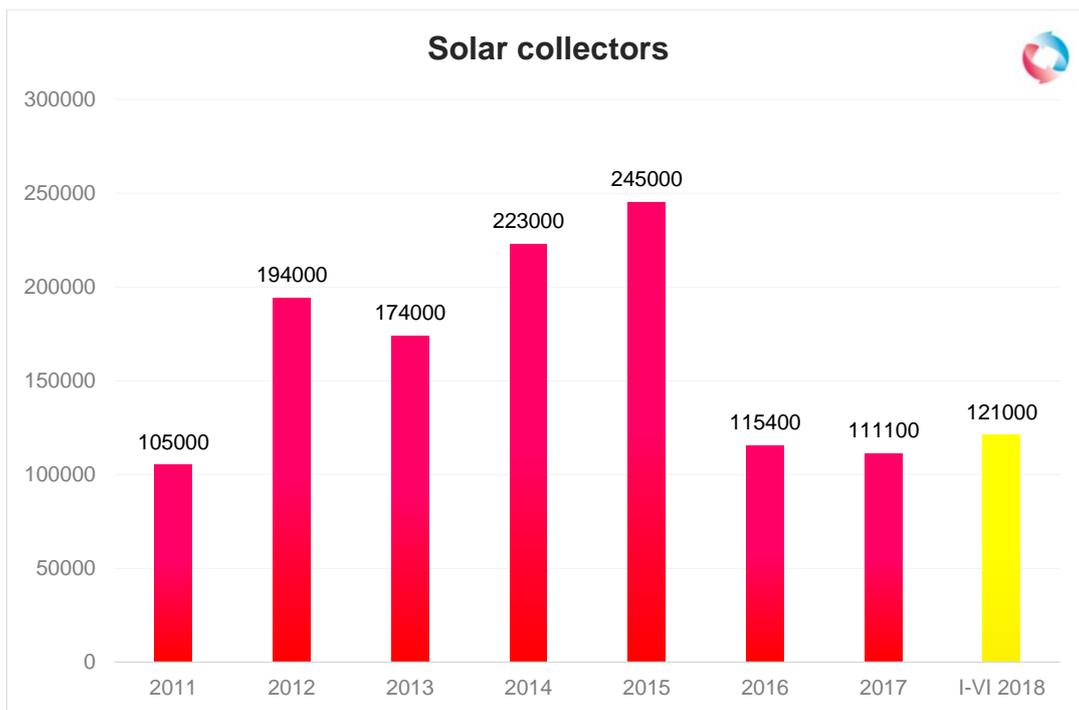


Fig. 31 Sales of solar collectors in total in 2014 – first half of 2018 (Source: SPIUG study)

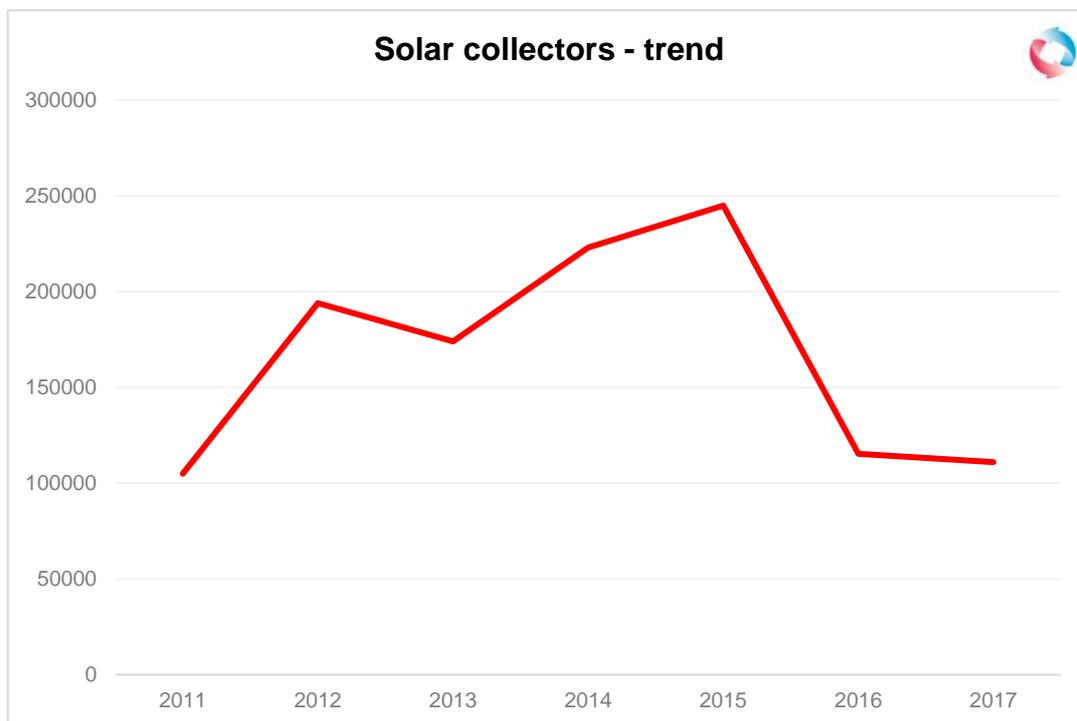


Fig. 32 Sales of solar collectors in total in 2014 – first half of 2018 – trend (Source: SPIUG study)

3.7 Radiators and other installation elements

2017, that is yet another year of residential housing boom, once again created a growing potential for steel radiators. The total market growth is estimated at 8-10% quantitatively, and – after price increases, a dozen or so per cent by value. In 2017, the product price significantly increased (in total by several to more than ten per cent), due to more expensive raw materials (cold-rolled steel sheet). Nevertheless, a lot of market players signalled about 10% drops in the radiator sales, for both steel and aluminium radiators. This is caused by increasing popularity of floor heating. There is a distinctive growth in the sales of floor heating equipment, mostly pipes. This resulted in an increase for other fitting elements for surface and low-parameter heating coming to 20% in the entire 2017. Contrary to the pessimistic signals coming from the market, the economic situation in the building industry also caused increases for classic radiators, mostly steel, of 5-8%, but according to the installation wholesalers, there were no investment projects, which could indicate an emergence of an alternative way of providing construction sites with installation materials.

In the case of other fitting elements for heating and other systems, the increase in 2017 can be estimated at +10%. Gas instantaneous water heaters for warm water preparation are slowly yet consistently disappearing from the market. A large number of these devices installed in the last several decades require replacement or, more and more often, are replaced by other HUW solutions. In new buildings, heaters of this type are practically never installed. In older buildings, during replacement of heating systems and solutions, they are often replaced with combi gas boilers, which – apart from warm water preparation – also create warm water for heating purposes. Also, the initiative of connecting old buildings to the district heating networks allows to provide the buildings with HUW from the same source. In 2017, just like in the preceding years, there were small, several percent drops in the sales of these devices.

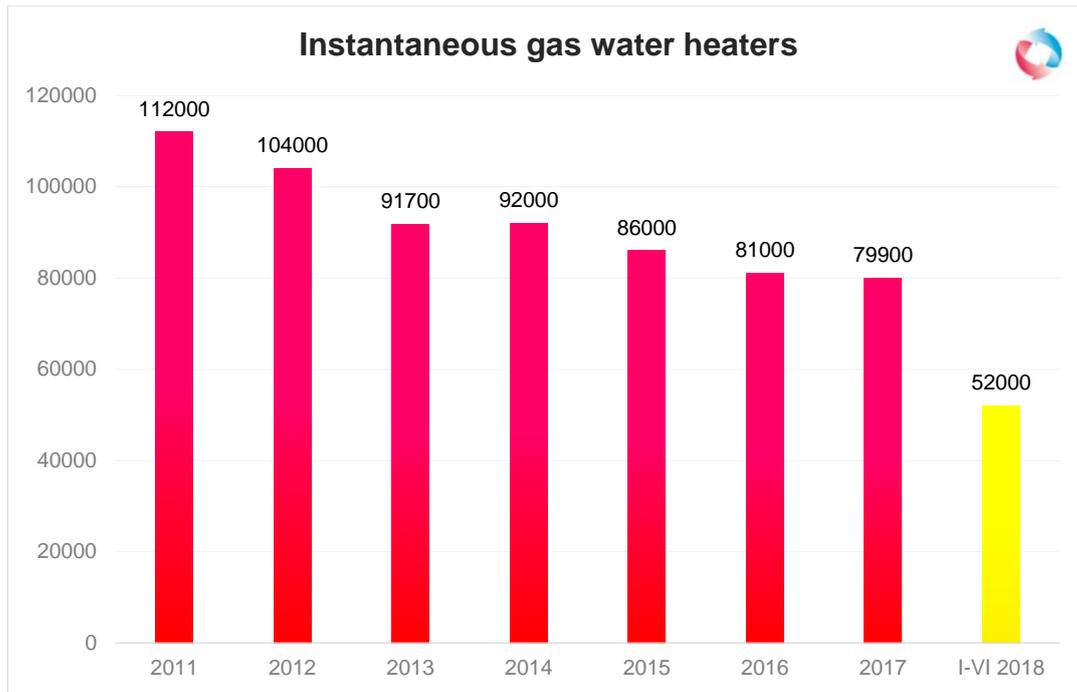


Fig. 33 Sales of gas, flow-through heaters for hot utility water between 2014 and the first half of 2018 (Source: SPIUG study)

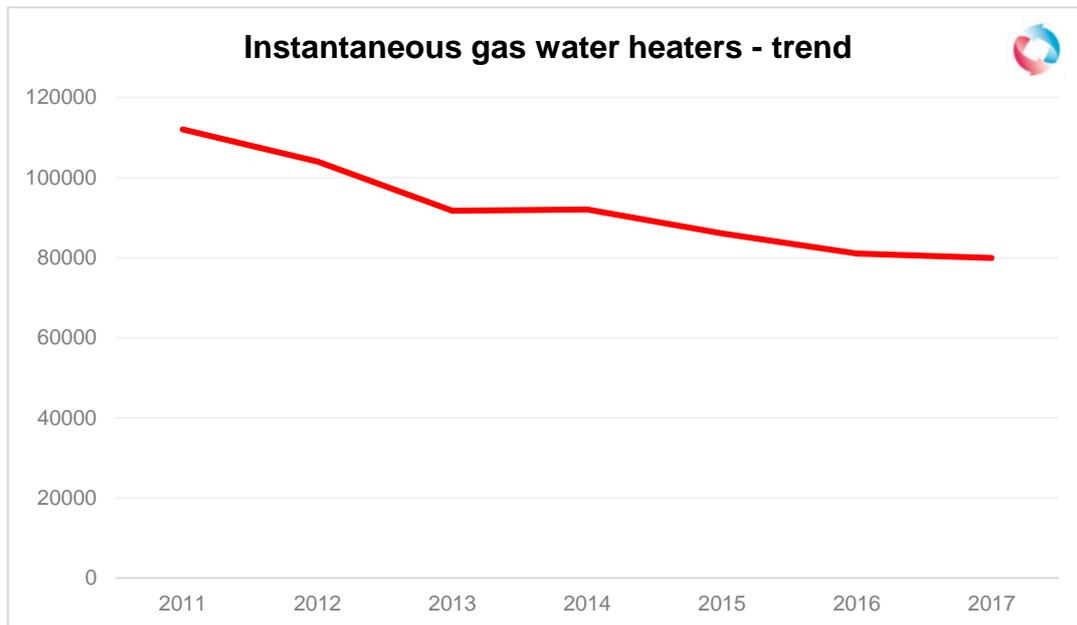


Fig. 34 Sales of solar collectors in total in 2014 – first half of 2018 – trend (Source: SPIUG study)

4 Summary of the forecast for development of the installation and space heating market in the future

The results in the residential housing in 2016 and 2017 regarding the number of the issued building permits, investments reported for implementation and the number of new construction sites let us have an optimistic outlook on the potential performance of the installation and space heating industry in 2018 and 2018. Besides, this is visible in the sales results for the heating device industry in the first half of 2018. This positive trend should prevail, unless there is some major collapse in the global economy, which we cannot influence in any manner, or unless other negative political events occur. In 2017, the installation and space heating industry in Poland recorded relatively high increases, the level of which will be maintained, yet the dynamics may drop a bit due to financial capabilities of the investors. Let us remember that a lot of the investments were financed from the investors' own resources, instead of any support programmes. 2018 saw the launch of the Mieszkanie Plus programme – so far without any spectacular results – yet it is too early to predict its impact on the installation and heating market. So far, in 2018, there are enough apartments to be finished and apartments under construction, which will have to be fitted with heating devices and connection system, which bodes rather well for the performance of the installation and space heating industry in Poland in 2018.

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