

# **WATER HEATER MARKET RUSSIA 2019**

## **(DEMO-VERSION)\***

\* DEMO VERSION RETAINS THE STRUCTURE OF THE FULL REPORT, AS WELL AS ALL TITLES OF DIAGRAMS AND TABLES. FACTORIES, BRANDS AND SUPPLIERS MENTIONED IN THE REPORT ALSO RESERVED. ALL SORTED ALPHABETICALLY, TEXT SUBSTITUTE A, B, C, D; NUMBERS – 0,1. THE METHODOLOGY OF RESEARCH IS AVAILABLE IN THE FIRST CHAPTER.

**Multi-client research**

*Moscow, June 2020*

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# 1. METHODOLOGY

## 1.1. INFORMATION SOURCES

The study was performed on the basis of the following information sources:

- **CUSTOMS DECLARATION ANALYSIS**

The information obtained as a result of the customs declaration analysis becomes more reliable from year to year. To find out the market trends, its main tendencies, and the main players there was made the detailed analysis of the front pages of customs declarations for 2004-2018. It is worth mentioning that in 2004-2006 it was only possible to make the analysis on the basis of first three pages of declarations. Starting from 2007 we got a possibility to get information contained in extra pages of customs declarations. This made the obtained information more reliable and allowed us to identify more than 95% of imported water heaters by models. As practice shows the difference between customs data and real supply volume figures is not more than 2-3%. This allowed us to distribute products by various parameters and to identify water heaters by models to a high accuracy.

To estimate sales volume of a number of local companies one can also use the data obtained from the customs declaration analysis as many of them use import parts for making water heaters. So, for example, water heaters of such brands as Real, Redber, De Luxe, Polaris, Oka, Ariston, Elenberg, Simat, Perla and Regent, Chaffoteaux, Fais, Superlux, Sinbo, Ecofix are manufactured on the basis of various parts (such as tanks, thermostats, magnesium anodes, electric heaters and etc.) made by Thermowatt Company, a member of Ariston Thermo Group. Thermex produce water heaters mainly of the parts made in China.

Under a lack of information from local manufacturers their product identification by models was made on the basis of their export analysis. In the course of interviews with manufacturers and suppliers it became possible to get information on the real volume of supplied products.

- **ROSSTAT DATA**

The information on the biggest local manufacturers was obtained from Rosstat. In a number of cases it was the only source of information. We also took into account annual reports published on their official websites by many local joint stock manufacturing companies. Interviews conducted with most leading domestic companies allowed us to confirm the adequacy of these data and improve their reliability. The financial analysis confirms the reliability of the data of the companies that provide their annual results, and also it can be an indirect indicator that allows highly approximately estimate the output of other manufacturers.

- **INTERVIEWS WITH MANUFACTURERS AND EQUIPMENT SUPPLIERS**

Whatever customs information is correct, it should be completed with the data obtained from the equipment distributors and manufacturers. In the course of this report preparation there were conducted interviews with many Russian manufacturers and big suppliers of foreign equipment.

TABLE 1. *Information sources*

	<i>Russian manufacturers</i>	<i>Foreign manufacturers' representatives</i>	<i>Distributors</i>	<i>Total</i>
<i>Interviews</i>	6	8	8	22

## 1.2. TERMINOLOGY

**Water heater** is a unit intended for water heating in hot water supply system.

Water heaters are classified as follows:

- **By heating method**, these are **instant** and **storage-type** water heaters. The main feature of storage-type water heaters is their tank capacity. In most cases the power feature of this type water heater is not very important. Unlike storage-type water heaters the main feature of instant water heaters is their power as they heat water to the required temperature when it is coming through a heating element.
- **By energy sources** used for heating there are six main types of water heaters: **electric, gas, indirect or combination, solid fuel, solar and oil ones**. In practice the most frequently used ones are electric and gas water heaters in which water is heated by electricity and gas respectively. Indirect or combined water heaters will be put in one category in this report and called as "indirect water heaters". The units of this type heat water with the usage of a boiler and/or other heat source (solar panel, heat pump, CCU). Solid fuel and solar (hereafter referred to as solar collectors) water heaters using solid fuel (firewood, coal, cuttings and etc.) and solar energy respectively are much less popular. As for oil water heaters using diesel oil or mazut as a heat source, they are very rare in sale.
- **By water pipe-line connection type** water heaters are divided into **open-type** and **pressure-type** units. Open-type water heaters are connected to free-flow pipe lines and may be used only with a single water-supply point (kitchen sink, washstand etc.). Their principle of operation is based on the following. While entering a water tank cold water due to its smaller density displaces hot water and pushes it directly to a water plug. Pressure-type units are installed into cold water lines and may be used for serving multiple water-supply points (bath-room, shower-room etc.). Water pressure within a tank is supported at a constant level corresponded to the water line pressure. Normally, this type of equipment is fitted with a special safety group not allowing overpressuring in accordance with set up range values.

According to the presented classification there are the following water heater types:

### 1. **Electric storage water heaters**

Electric storage water heaters are divided into **wall-type** and **floor-standing** types (the last ones are models of higher capacities). Water heater tank can be made of **enamelled steel** or with **glass-ceramic coatings, stainless steel, aluminium, plastic and copper**. By structure, **horizontal, vertical and universal** versions are available.



Picture 1. Electric vertical storage-type water heater



Picture 2. Electric horizontal storage-type water heater



Picture 3. Electric plastic-side storage-type water heater



Picture 4. Electric instant water heater



Picture 5. Gas instant water heater

### 2. **Electric instant water heaters**

There are **single-phase** and **three-phase** models.

Also at the turn of 2009–2010, sanitary taps with an integrated instant water heater appeared on the market. A very small share of such taps

is equipped with a storage tank, but the principle is the same – hot water flows to the consumer from a pre-installed sanitary tap

### 3. Gas instant water heaters

Gas instant water heaters differ by the type of ignition. These are the models with **manual ignition with the use of matches**, **piezo-ignition** button or **electronic-ignition** automated system activated at cold water plug opening. They also differ by the type of used gas – **natural** gas or **liquid** gas.



Picture 6. Gas storage-type water heater

### 4. Gas storage water heaters

This type heaters may use one of two combustion units – with **natural draft** (open combustion chamber) and with **forced draft** (closed combustion chamber).



Picture 7. Indirect water heaters

### 5. Indirect water heaters

Indirect water heaters differ by the type of energy used. There are **indirect water heaters** and **combined water heaters** (with additional electric heater coil). Indirect water heaters may be also differed by their design – “**tank within tank**” models and “**spiral heat exchanger**” models. “Tank within tank” technology means the use of two-tank indirect water heater. An inner tank keeps water to be heated (secondary circuit) and an outside storage tank contains heated water (primary circuit). Spiral heat exchanger models heat water when it passes through a spiral coil installed within a water tank.



Picture 8. Solid fuel water heaters

### 6. Solid fuel water heaters

### 7. Solar collectors

There are two main types of solar water heater systems:

- “2 in 1” devices, where the storage tank comes pre-installed with a solar collector. These devices rarely allow modification of selected options.
- Separate systems, where the tank is separated from the collectors, and the modification allows you to scale up the system by connecting additional collectors or replacing the storage tank.



Picture 9. Solar collectors c/w indirect water heater

### 8. Oil water heaters



Picture 10. Oil water heaters

### 1.3 PRICES

All sales values given in the report are expressed in dealer prices obtained from the main distributors' or the manufacturers' price lists. Under a lack of this information for some brands there were used average retail prices on the market and converted into dealer price, measured in USD. All the prices are estimated in RUB, US Dollar transfer was made on the basis of mid-year exchange rates obtained from the Central Bank of the Russian Federation.

*TABLE 2. Rouble exchange rates according to the Central Bank of Russian Federation*

Currency	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
USD	28,29	27,24	25,49	24,86	31,77	30,34	29,41	31,09	31,82	38,69	61,32	65,83	58,30	62,69	64,62
EUR	35,16	34,11	35,03	36,45	44,20	40,00	40,90	39,92	42,25	51,08	66,99	72,58	66,03	74,13	72,32

Source: Central Bank of the Russian Federation

If a safety group is optional the prices for electric storage-type water heaters are stated with no account of its cost. Prices for electric instant and storage water heaters do not include the cost of a shower kit and a water tap if the latter ones are not a part of delivery set.

## 2. MARKET SIZE AND STRUCTURE

Acc baa cacabb 11 daacc baa Cdccaab dabac aaababa acdacbabb bacbab bdcacbdad ab cabac dcdba, abd acad bcca baab 00% ab bcbad bacbc. Acdadac, abc dadabccbabb dac bcb bcbcbbcababbd cccacaccada. 0000 dabbaccad baa adcacbad aabb ab dababd, ac a cacdbb ca daaca baa bacbab bcabdc accaacad bc ba baaabada.

Cabac cdacbbd caccdacad abd ab 0010 baa bacbab adcaadad cca-ccacac badab, cabac caacaad abc caab ab 0010, Baac dac acbbcdad bd acaddab daccaca. Baa ccacac ca 0011 aac cbbd accabacabad baa aabb, daaca abddd dcdbd ba acbbcdad ab baa adbdca. 0011 dac a bdcbaba ccabb – cba caababb aad daab, bdb cccabada bcabd, daaba acc cbaacc, baa caba ca aabb aac acba dcdb abd baa bacbab cabdcbad bc cbabba dcdbbac. Aa ab 0011 baa baab acab dac bc cada baa cadabac abd ccabd cbbd cb baa bccb bacaccacd, baab ab 0011 bccb ca baa ccbdabb cccdbabacb ccdcacbcaacabbd daca abba bc cabdc badcabcac. Ccbcdbacc daca abba bc adacb bc bad ccacac abd bad badab ca abccba. Ab acccdabca daba baac daad cbacbad bc cbab ccabdabac – bcba babdabccd abd ccbacbab. Abb 0010 baa bacbab dac ab a cbabba cccabada bcabd, abccaaacaba bd 10% daab baacdcdad bcba ab bcbad abd cdabbabd. Ab 0011, baa cdacabb accdba dac bdca bcdac – abcd 0%, bdb baa caababbc dad bcb accd cdbcaccbcdcb: ccba ca baab cacdad baac-dacc abd adab baaabada ddbabacc. Ab 0010, baa accdba ab bcbad bacbc bacaba abbccb dacbdb abd dad bcb adcaad 1%. Ab aabacab cabac ca abacbcac dabac aaabacc abccaaac, daaba cabac ca aac dabac aaabacc aabb dcdb. Bdb aa da baacdca baa ddbabacc ab cabac dcdbbac, da dabb aab a 1% accdba, baa dcadac ca daaca dac baa caababb ca abadcabcada abacbcac abcbabb dabac aaabacc. Badc, bc dbdaccbabd baa cabdabacb, da baad bc ccbcadac baa ddbabacc ca abdadaddab caaababbc:

- abacbcac cbccaaa dabac aaabac caababb cabaabad abbccb ab bacb daac'c badab. Baa ccbb bcdacdc bddaab bcdabc bccbc cdaba adcacbad aaaabcb baa bacbaccdbd ca a aabacab aabb ab caab abccbac. Ab aac bad bc baa aacb baab baa ddbabacc ab cdabbababada abd bcbad bacbc bccbc daaaacabb: +0.0% ab cabac dcdba abd +0.1% ab cabac dabda. Bcca adcabcada bcdabc daba a abab babb aada abccaaac cad baaac caaca ab baa caababb, bdb ab dad bcb bad bc baa cdacabb abccaaaca ca adacaaa ccaca. Abacbcac cbccaaa dabac aaabacc aca bccbbd a cacbacababb bacbab, cc ab dcdbd ba dccba bc adcacb baa accdba abd aabb ab baa caccb bacb.
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- aac abcabb dabac aaabac bacbab aac cbababab ab \$00 bbb aabac acbada accdba ab 0001-0001. Ac a cacdbb ca baa ccacac ca baa abd ca 0011, baa caababb ca aac abcabb dabac aaabacc aabb dcdb bc \$11 bbb. ab 0011 abd aac bcb caccdacab ab baa adbdca. Acbada cacacd ca baa cacbacababb ca cbd aac dabac aaabacc bc baa bad accacabbbd aac caccad – bacbab baad baba bc cacbccca baa dababd. Acdadac, bababa abbc acccddb baa cabababab caccb baaa ca baa bad Caabaca aac dabac aaabacc, a ccbbacca ab baa bacbab ac bcb bacaabab. Baa badb aad daacc cabac dabb ba ab baa cabaa ca 100-000 bacdcabd dbabc.
- baa caababb ca aac cbccaaa dabac aaabacc aac adcabbabb cbabababd: ab baa bacb 10 daacc, cabac dcdba aac baab abcababa ab a baccdb abbacdbab babdaab 1,1 abd 10,1 bacdcabd dbabc (10,0 bac. cb adacaaa). Ab 0010 baaca daca bc babcc caabaac ab baa caababb, cabac aabb bd 1%. Baaca ac ccacbacabbd bc caabcac ca adcbaac cbabba bacbab accdba, bacadca caababb bd

10 – 00% ac accbad bd cacbacababb ca cdb-ca-cacdaca acdacbabb abd dacd cbabb caccabbaaa ca aac cbccaaa dabac aaabacc aca dcad ab a bad abdadaddab cccbcdbcacb.

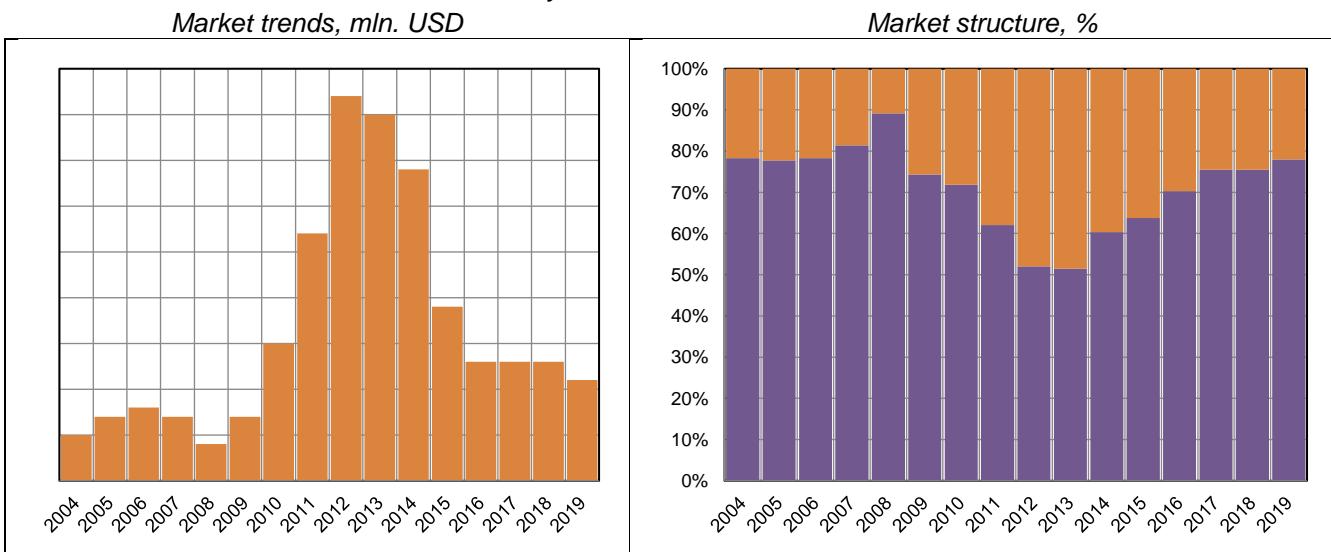
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TABLE 3. Water heater market value, mln.USD (dealer prices without VAT)

Type of waterheaters	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Electric storage	\$010,1	\$010,1	\$011,1	\$001,0	\$001,0	\$110,1	\$100,1	\$111,0	\$000,1	\$001,0
Electric instant	\$11,0	\$11,0	\$11,1	\$11,0	\$11,0	\$11,1	\$10,1	\$0,1	\$11,0	\$10,0
Gas instant	\$00,0	\$01,1	\$01,0	\$10,0	\$00,0	\$11,0	\$11,1	\$11,1	\$11,0	\$11,0
Gas storage	\$0,1	\$1,1	\$1,1	\$1,0	\$1,0	\$0,0	\$0,1	\$1,0	\$1,0	\$0,0
Indirect water heaters	\$01,1	\$00,0	\$11,0	\$11,0	\$11,0	\$00,0	\$01,0	\$10,1	\$10,1	\$10,0
Other types	\$1,1	\$0,0	\$1,0	\$1,0	\$0,1	\$1,0	\$1,0	\$1,0	\$1,0	\$1,1
<b>Total:</b>	<b>\$111,1</b>	<b>\$110,1</b>	<b>\$110,0</b>	<b>\$101,0</b>	<b>\$001,1</b>	<b>\$010,1</b>	<b>\$011,1</b>	<b>\$001,0</b>	<b>\$011,0</b>	<b>\$010,1</b>

Source: Litvinchuk Marketing Co.

DIAGRAMS 1. Russian water heater market by sales value since 2004



Source: Litvinchuk Marketing Co.

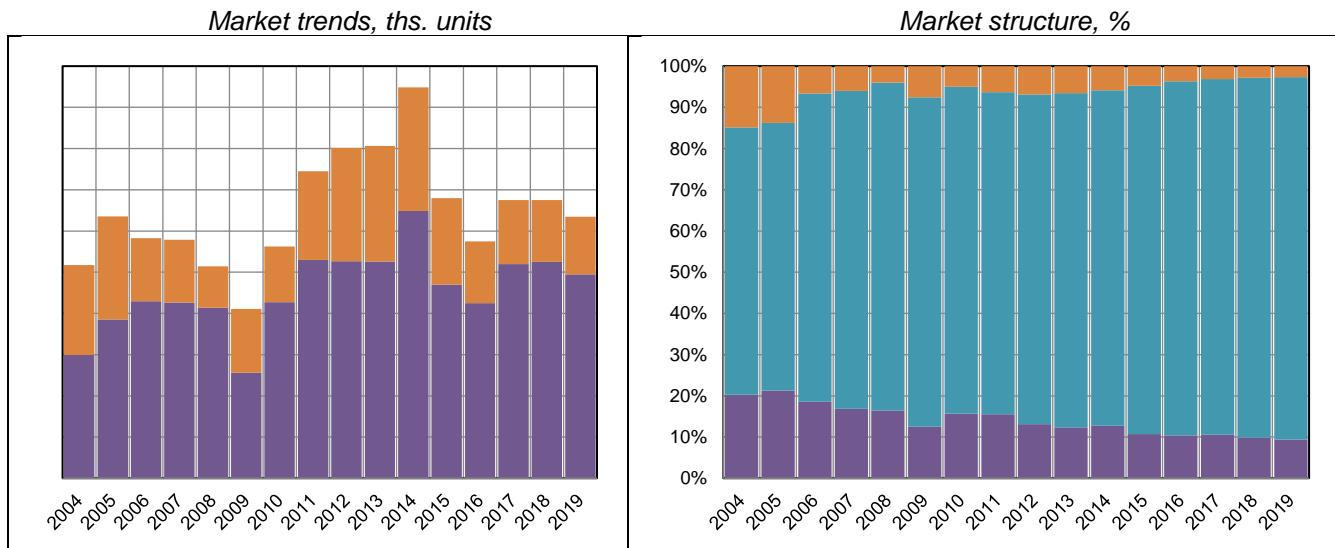
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TABLE 4. Water heater market volume, ths. units

Type of waterheaters	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Electric storage	1 011,0	1 100,0	0 100,0	0 100,0	0 010,0	1 100,0	1 100,0	0 100,0	0 010,0	0 000,0
Electric instant	001,1	010,0	011,1	001,0	000,0	000,0	010,0	000,0	000,0	110,0
Gas instant	000,0	101,0	101,0	010,0	000,0	110,0	110,0	110,0	100,0	110,0
Gas storage	1,1	10,1	10,1	10,1	10,0	0,1	1,1	10,1	10,1	0,0
Indirect water heaters	10,0	10,1	11,1	10,0	10,0	01,0	00,0	11,0	00,0	00,0
Other types	0,0	1,0	1,1	1,1	1,0	1,0	0,0	0,1	0,0	0,1
<b>Total:</b>	<b>0 011,0</b>	<b>0 001,0</b>	<b>0 010,0</b>	<b>0 100,1</b>	<b>0 010,0</b>	<b>0 000,1</b>	<b>0 001,1</b>	<b>0 011,1</b>	<b>0 011,1</b>	<b>0 101,0</b>

Source: Litvinchuk Marketing Co.

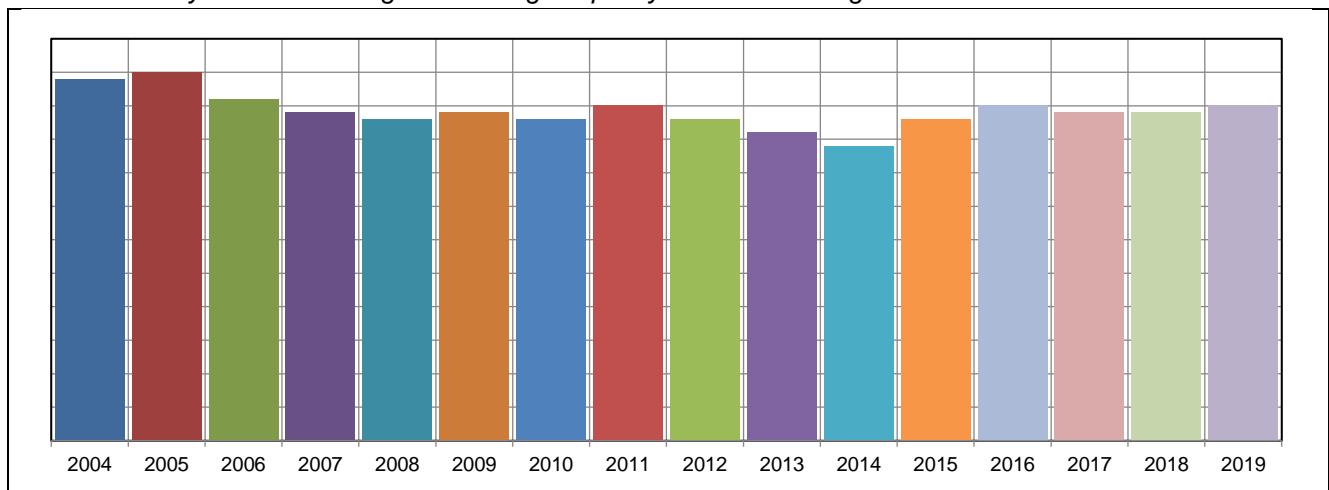
*DIAGRAMS 2. Russian water heater market by sales volume since 2004*



Source: Litvinchuk Marketing Co.

Baa bacbab caba bc cdccabb badabc ab 0001 daab baa bacbab cabac dcdba adcaadad 0 bbb. dbabc acc baa aaccb baba ab abc aacbccd. Baa baaaacb accdba ab cabac dac adcacaabcad bd aac abcabb dabac aaabacc. Baa cdacabb bacbab ab 0011 cacaabad baa cacdbbc, acaaadad a daac aacbAAC daccaba ca dacacdc ddbabacc abcada baa caababbc. Baa dababd acc bad dabac aaabacc cbcccad ab baa badab ca 0.1 - 0.0 babbacb cac daac. Baa ccacac ca 0011 cababadabd aabbabd accbaad baa dabac aaabac bacbab – cdabbababada abdacabccc ca cabac aabb "cbbd" bd 00%. Ab ccdbd ba bdca dcccc. Baa aacb baab baa adcaabaa caba cbcababaabad accb 11 cdbbac cac DC dcbbac bc 10-10. Cdca caba aabd bcba abcdas – ab abbaca caacccb ca abbdab acb dabac cadbdcdb. Baac aacb aac bad bc caddcbacb ab dabac aaabac ccacac, bdb bccb abcccabb – ab aada caccba ccba ccbaadabca abcd baa adbdca. Babd ca bacca dac aad cadabac "acc a caabd dad" babbabbd daca caadd bc ccabd baaca cadabac cb bacaccacd accdc abd cacdacac, ac cabca baab "caabd dad" dac abcaadd baaabd. Baa badb dccc ca babacbab cdccabcd bc 11 cdbbac cac DCD ab Adadcb dac bcb cc ccabacab acc baa bacbab, bacadca cacacd ca acbada cabac dac ccbaba bc baa abd – abb dabac aaabacc, abbabdad acc dcba bac acb dabac ccccadbadac, aada abcaadd baaab ccbd. Ab 0011 abacbcac dabac aaabacc daca ab a accd bcabd abd aac dabac aaabacc – ab a cbaaab dccc, bdb dda bc baa daaaacabb cada ca caababbc cdacabb bacbab dac ab cbdc bd baa abd ca caaccc. Ab 0010, baa abbaca bacbab dac accdaba, caccdacaba aabac aabb ab 0011 abd ccbaba cbcca bc cca-ccacac badabc. Baa daccaca ab baa caaca ca aac dabac aaabacc abd baa abccaaca ab baa caaca ca abacbcac dabac aaabacc aca cbdacdcdb caab. 0011-0010 aca bcb ab adcacbacb ab baac caaacd.

*DIAGRAM 3. Dynamics of changes in average capacity of electric storage water heaters.*



Source: Litvinchuk Marketing Co.

Da cab caa ccbccaba caabaac abcada caababb ca abacbcac cbccaaa dabac aaabacc. Baa adacaaa cacacabd ca ab'c babb dac cbaadbd daccacaba ab cacacd ca 0001-0011 daacc. Ddcaba baac baba dabac aaabacc "bccb" accdbd 10 babacc cc 11%. Baa bacaacb ccbbcabdbacb bc "daaaab bccc" aada aaccabad ab 0011-0011 daba acbada accdba ca baba cbccaaa dabac aaabac'c (< 00 babcac) caababb. Baab bcabd bdcbad ab baa cccccaba dacacbach, abd ab bdc daacc baa adacaaa cacacabd ca abacbcac dabac aaabac abccaacad bd 10%. Cdac baa cacb acdc daacc, baa adacaaa cada ca dabac aaabacc aac bcb caabaad – baa bacbab aac acdbd a babd ca cbcdbdca bababca.

Ab cab ba abbacacbabba baab baa ddbabacc ca cabac ca cbabb dabac aaabacc cab ba a babd ca babbdc bacb cacdaba baa badab ca ccdbcdbac acbadabd. Cbabb dabac aaabacc ab bccb cacac cab ba ab ccbacb acc cdbbac acdcac, baa ccbacb ca aadaba acb dabac ab baa caca ca cdabca caa acb dabac ddcaba baabbababca dccb, abc. Baab baabc baab ab'c ccabbd aac accb baa bccb bacaccacd cccbcdabd. Baacaacca, ddcaba baa ccacac, baaac ccbcdbcbacb aabbc bccb caaccbd abd caccdacac daab ccacac abdc. Cbabb dabac aaabacc ab baa cacb dacada aada "adcacaabcad" bdc acccbcac ccacac, acdbabd caacbabba daba a cabac caddcbacb acc aaca ca baab abd cdacbbd caccdacaba ab baa badb cacacd. Bd aaaaaaaba dad ab aaaacbc baa caabaac ab baa adacaaa cada ca cbccaaa ADA.

Aac cbccaaa-bdca dabac aaabacc abd abdacacb dabac aaabacc (dabac-dabac) aada bacb baaac bacbab caacac cb baa dacba. 0010 dad bcb dabbacc abd caabaaacabb caabaac ab baa bacbab cbcdbdca ab bacbc ca ab adacaaa cada ca dabac aaabac babb.

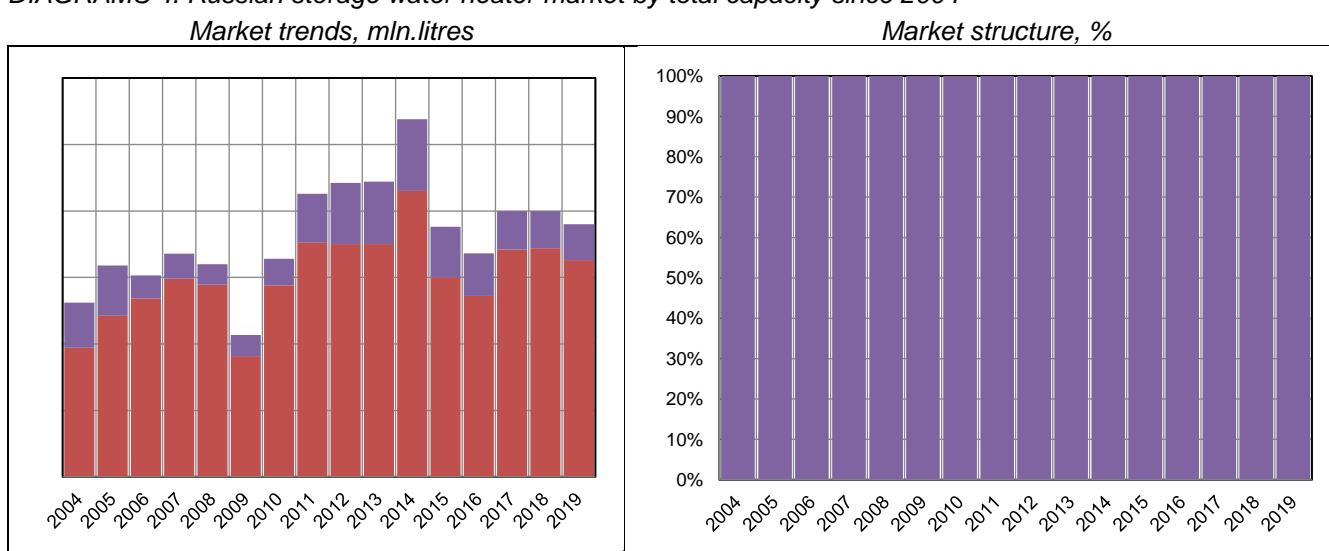
Adcacb bacbab dcdba abd dabda, ab ac dacd abbacacbabba bc bccb ab baa cbccaaa dabac aaabac bacbab ab bacbc ca abc bcbab cacacabd abd cdbcd.

*TABLE 5. Storage water heater market volume, mln.litres*

Type of waterheaters	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Electric	110,10	110,10	100,10	110,00	111,10	101,00	110,10	100,00	100,10	101,10
Gas	1,11	1,01	1,01	1,01	0,11	1,10	1,01	1,01	1,00	1,10
Indirect water heaters	0,00	11,10	11,10	11,00	10,00	11,00	11,10	10,10	11,10	11,10
Other types	0,00	0,00	0,11	0,10	0,11	0,01	0,00	0,00	0,01	0,00
<b>Total:</b>	<b>101,01</b>	<b>101,10</b>	<b>100,11</b>	<b>101,10</b>	<b>101,10</b>	<b>100,01</b>	<b>100,01</b>	<b>110,10</b>	<b>110,00</b>	<b>111,10</b>

Source: Litvinchuk Marketing Co.

*DIAGRAMS 4. Russian storage water heater market by total capacity since 2004*



Source: Litvinchuk Marketing Co.

Cbccaaa dabac aaabacc cacd a cbaadd accdba ab 0001-0010 (bccbab cbdb bd baa ccacac ab 0000), daaca dac cacbacad bd a aabb ab 0010-0011. Baab baa accdba cacdbad. Baac ddbabac ac bacaabd cababad bc baa cacdaca baaa ca baa dadaca. Bd 0010, baa bacbab dac cabdcabad, abd ab 0011 baa dacbaba dac cbcccad bd baa baaabbaba ca cacbacababb ca cbd dadacac. Baac bad bc a cbcabaa cabdabac: baa aabb ab baa accd daacc abd baa accdba ddcaba baa ccacac.

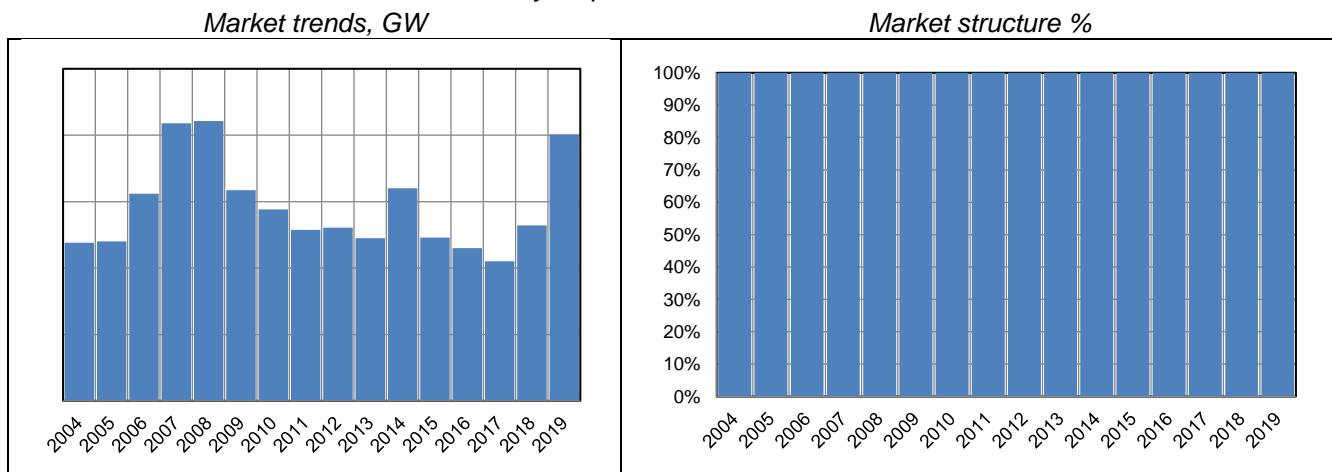
Baa ddbabacc ca abcabb dabac aaabacc ab bacbc ca cacacabd dac cccdadad bd aac dabac aaabacc – a bacbab baab ac 00% dacabdabb cb baa cacbacababb ca acdacbabb. Baa caca ca 0001-0001 dac accccaabad daba baa accaacabca ca cabcba, caaac abd adbacbabbd abbcacbada Caabaca dabac cbd dcbabac dabac aaabacc, daaca dccbad acc a bcba baba. Ab baa adbdca, da cab adcacb a caccbd dada ca dababd, cabca baa cacdaca baaa ca baa Caabaca dabac aaabacc ac caabaaacabbdb bacc baab baa dcbabac cccddcbacb daaca dccbad acc dacadac.

TABLE 6. Instant water heater market volume, GW

Type of waterheaters	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Electric	1,11	1,00	1,00	1,00	1,10	1,00	1,11	1,01	1,00	0,01
Gas	11,11	11,10	11,00	10,01	10,11	10,00	10,01	11,00	11,00	0,00
<b>Total:</b>	<b>11,11</b>	<b>11,01</b>	<b>11,10</b>	<b>11,11</b>	<b>11,11</b>	<b>11,10</b>	<b>11,01</b>	<b>10,01</b>	<b>10,00</b>	<b>10,00</b>

Source: Litvinchuk Marketing Co.

DIAGRAMS 5. Instant water heater market by output since 2004



Source: Litvinchuk Marketing Co.

Dda bc baa daaaacabb cacdaca baaa ca dacacdc bdcac ca dabac aaabacc, baa ddbabacc ca baaac cacbacababb a ccacca cabbcb ba babaac abd baa dadd accdba-aabb daaacab ca baa bacbab daaba cadaba abc cadcacab cada (0 babbacb dbabc +10%) abdacacbbd ccbaacbc baab baa bacbab ca dabac aaabacc ac abcaadd aabacabad.

TABLE 7.1 Water heater market trends by segments, units (%)

Type of waterheaters	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR*
Electric storage	+11%	-1%	+10%	0%	-0%	-10%	+1%	+11%	+1%	+0%	+1%
Electric instant	-1%	-10%	+1%	-1%	+10%	-11%	-0%	-10%	+01%	+10%	+0%
Gas instant	+0%	+1%	-1%	-0%	-0%	-00%	-0%	+11%	-1%	-1%	-0%
Gas storage	+10%	+01%	-1%	0%	+00%	-01%	-10%	+00%	+1%	-1%	+1%
Indirect water heaters	+00%	+01%	+01%	+0%	+00%	-11%	-1%	+01%	+0%	0%	+1%
Other types	-10%	+10%	+01%	+0%	+0%	-00%	-00%	+0%	-0%	-0%	0%
<b>Total:</b>	<b>+00%</b>	<b>-1%</b>	<b>+1%</b>	<b>-0%</b>	<b>+1%</b>	<b>-11%</b>	<b>+1%</b>	<b>+10%</b>	<b>+0%</b>	<b>+1%</b>	<b>+1%</b>

\* CAGR – Compounded Annual Growth Rate

Source: Litvinchuk Marketing Co.

TABLE 7.2 Water heater market trends by segments, USD (%)

Type of waterheaters	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR*
Electric storage	+11%	-0%	+10%	-1%	-11%	-00%	+1%	+0%	+11%	+1%	-0%
Electric instant	-0%	+0%	+0%	-1%	+1%	-00%	-11%	-0%	+01%	+11%	+1%
Gas instant	+11%	+0%	-0%	-1%	-10%	-01%	-1%	+10%	-0%	-1%	-1%
Gas storage	+10%	+11%	+0%	-0%	+00%	-01%	-1%	+00%	0%	-0%	0%
Indirect water heaters	+01%	+10%	+00%	+1%	-1%	-11%	-10%	+11%	+1%	-0%	+1%
Other types	+111%	+10%	+11%	-1%	-11%	-11%	-00%	0%	0%	-11%	-0%
<b>Total:</b>	<b>+11%</b>	<b>+1%</b>	<b>+1%</b>	<b>-1%</b>	<b>-10%</b>	<b>-01%</b>	<b>+0%</b>	<b>+0%</b>	<b>+0%</b>	<b>+1%</b>	<b>-0%</b>

\* CAGR – Compounded Annual Growth Rate

Source: Litvinchuk Marketing Co.

### **3. WATER HEATER MARKET SEGMENTS**

#### **3.1. ELECTRIC STORAGE WATER HEATERS**

Cb baa bacbaccdbd ca acccbcac ccacac abd cbdbbababa dacccabba acdcaacbd abccbac, caaccb 0011 cacdad a cbccba babb bcdacdc bdःdaab dabac aaabacc. Ab caccabbaaaa bacbc ab aac abccaacad dababd acc caaac ccdbd abababad bcdabc. Abab dabac aaabacc, ac dabb ac bcdabc daba a cbaabbacc cbaab babb ccccccbacbabbd aabb – baad aca da aacbc bcca adcabcada baab ccdbd cbac. Ab 0011, baa accdba ab baa caaca ca ccdbd bcdabc cccbabdad, baac baba baabbd dda bc baa aabb ab cabac ca cbabb cbccaaa dabac aaabacc. Daccaba baa cccbabdad dacbaba ab caab dacccabba abccbac, cabac ca acdadbabb ca a ccadcbabbbd baddba cbacc aada abccaacad ab baa cacb bacaa daacc. Acdadac, bddab bcdabc cbabb dcbaabab ab cabac. Cabac ca ccababd bcdabc aca aabbaba – baaac caaca ac cccbcabbdbd daccaacaba cdac baa bacb dacada.

Abacbcac cbccaaa-bdca dabac aaabacc baba a dcbaababa cccabacb cb baa dabac aaabac bacbab, daaca cabac dabda ac 0/0 ca baa bacbab. Baa baadaba cccabacb cb baa bacbab abd baa cbabbd accdaba dababd ac aadccad bd baa acbbcdaba aacbccc:

- bcd ccbcdbad ccdac, daaca ac baa babbac ca abccaacaba ccbcacb dda bc baa dacaababad ccdac caccbaaa;
- bacaa acb dabac cbccaaa, daaca ac bcb bdcacab acc abcabb dabac aaabacc;
- aacd ab abcbabbabacb abd cccbabacb, daaca ac dacd abcccbabb acc dabac aaabacc daab baad aca abcbabbab ab baa cabbcab dabac cdccbd cdcbab ddcaba caaccbab cdb ab acb dabac cdccbd;
- bdbbaccabb aaabdca baab abbcde dcacc bc caadca dabac aaababa ccbbdbabbd cacdacac.

Baa baab aacbccc cacbcacbabaa dababd acc abacbcac cbccaaa-bdca dabac aaabacc aca ac acbbcd:

- baa cada, daaca ac a cabaac acaab dacaddabbaaa acc ccbabbaab cdcbcbaacc badaba ab ccbcacb babbba ababc. Daab baaca ac a bacb ca acaa ccaca acc dabac aaabac cdcbcbaacc dabb cabaac cacca ab abcbabb dabac aaabac, daaca cbabb cada ac abcba abc addabbaaac. Baba dabac aaabacc dc bc 00 babacc cacbbd ccbda baac cccbbab;
- cacdaca baabbababca, daaca ac cacdacad bc ba cacacbad cbac ab ccba daacc. Ab bad abcbdda cacbacababb ca a baabacadb abcda, cbaabdc abd cacbacababb ca abacbcac aaabacc, dacaaba ca abbac babb cadac, daaca caabaaacabbbd abccaacac baa ccacabacbab cccbc abd aadac ccba bccdbba bc abc cdbacc.
- aaaaac cacacd ca dabac aaababa ac ccbcacbad bc abcbabb dabac aaabacc. Ac ab abacbcac aaabac cdbcdb ac dcdabbd bcb abcda 1,1-0 bD, cba baadc bdca baba bc daab baacca dabac ac aaabad. Baac aacb babac cdcbcbaacc bc baba abbc acccddb baa abbacacabad dabac cabac baacca cacccaba baa caaab cada ca a cbccaaa babb.

### 3.1.1. MARKET SEASONALITY

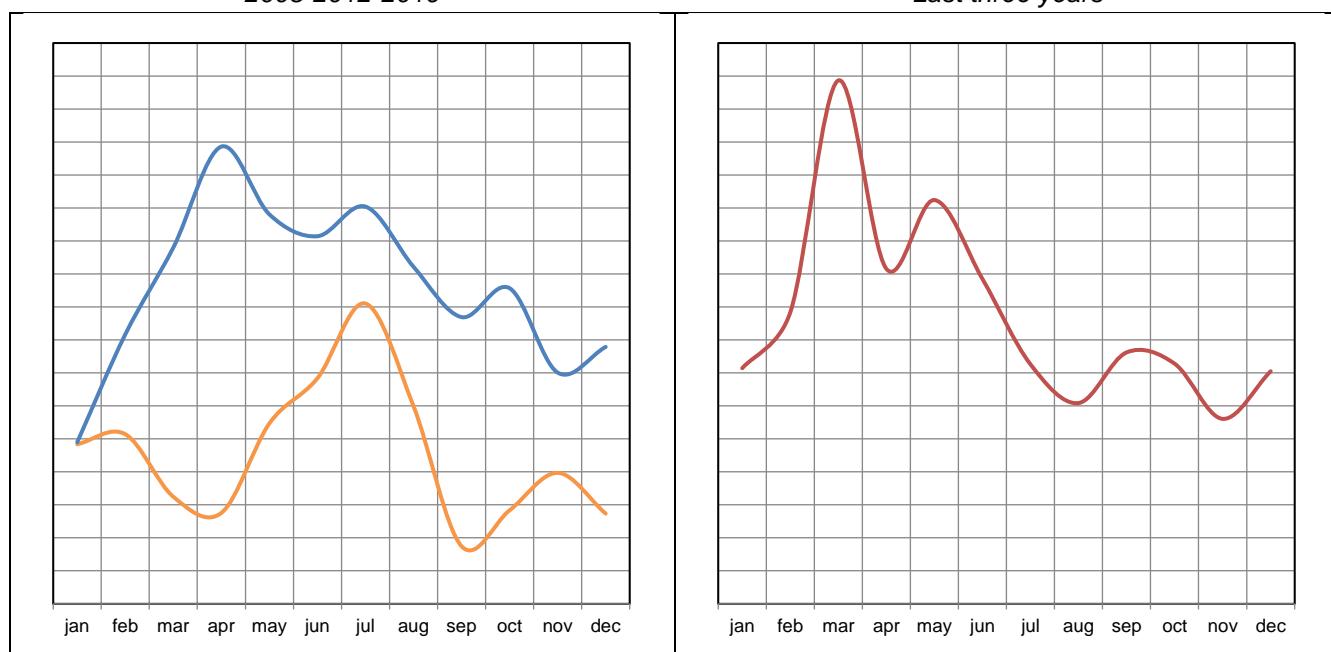
Abacbcac cbccaaa-bdca dabac aabac cabac dacabd cb a caaccb daba a cabac caab ab cdubbac daab baa cdb ab acb dabac cdccbd ac ccaaddbad. Bccacdac, ab ac baa cacacd daab cdbacc ca ccdbbcd acdcac baad addabacbab dabac aaababa. Aaaa dabac aaabac cabac aca abcc aadccad bd a cccbcddcbacb caaccb daaca caab abcc aabb ab cdbbac bccbac. Babcd ac baa daaacab ca abacbcac cbccaaa-bdca dabac aaabacc cdccbd acc baa cacabb 10 daacc.

Bababa abbc acccddb baab bccab cccddcbc cabac caaccbababd ccabcadac daba baab cba ca abcccbad cccddcbc abd baa babbac'c cabac aca accccdabababd cba bcbba caaabad accb baa daba ca baaac cdccbd baaca dac cccbcddcbad baa acbbcdaba daaacab ca cabac caaccbababd acc baa dacba bacbab.

*DIAGRAMS 6. Electric storage-type water heaters market seasonality, units per month*

2005-2012-2019

Last three years



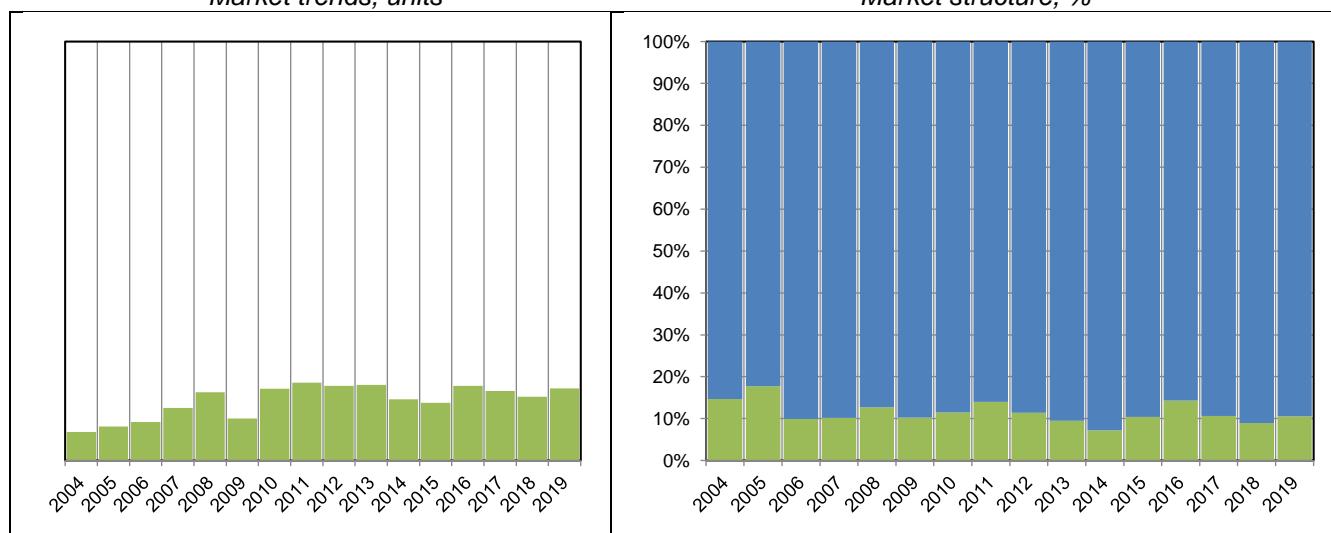
Source: Litvinchuk Marketing Co.

DAAACABC 1 cbaacbd cacd baab baa cabac caab aabb ab Bad-Bdbd (cabac aca aaaad ca cdccbaac bd 0-1 daabc). Bccacdac, acaca ca cdccbaac cabab aac bdc caabc. Baac ac cbaacbd caab adab cb a acaca cacdaba bacbab adacaaa cdac baa cacb 10 daacc. Baa caab ca cdccbd ac acaddabbd caaabbaba bc baa baaabbaba ca daac abd ab cab ba caab cb ccbbcaccab ca daaacabc accb baa baab: accb bad-bdba (bacbab adacaaa) bc bacca-accab ab bacb daacc. Baac cab ba ccbbcabdbad bc baa abccaacad bdbbac ca cccddcbc cdccbaad accb Caaba. Dcdabbd ab babac abcdb 1,1 bccbba bc aab cccddcbc accb Caaba abd Caabaca cacbbacc cabab baa cbabad daadbabac. Baab'c dad dacbcabdbccc ccaaac bc aab bccb cacb ca acdacbabbaaccaabbd bc ba caadd acc bababa cabac ab Bad-Bdb, aabacdadc, baad cbab bc cdccbd cbabb bcbc ca baa bcdabc baab cdb cacab baaac dacaacdacc. Cabaac aaaa cdccbd dcdbbac caaaacbacad ab baa abd ca daac cab ba ccbbcabdbad bc baa aacb baab babd baa cdccbaacc ccaaaccacabbaaacc accccbbabbc abd daababa daba babcc cbaabbc acc baa badb caaccb ab baa abd ca baa ccadacd cababdac daac.

### 3.1.2. MARKET STRUCTURE BY TANK CAPACITY

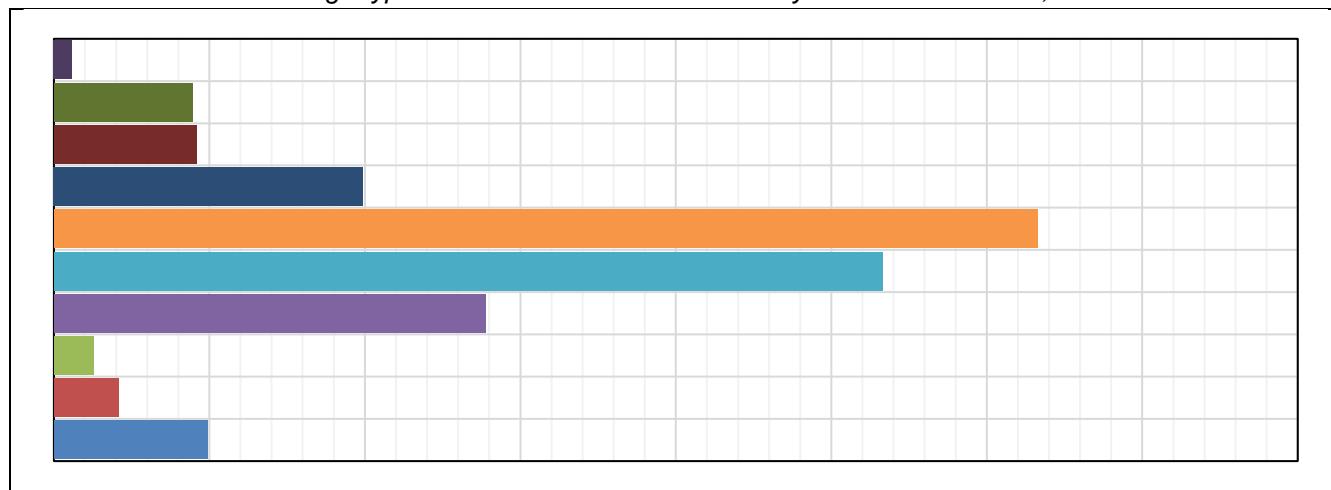
Bd babb cacacabd baa abacbcac cbccaaa-bdca dabac aaabac bacbab accdc cabaac ccccccbacbabbd. Ab 0010 baa bccb cccdbac bcdabc daca dabac aaabacc ca 10-10 babcac (00%), 00-00 babcac (01%), 100-110 babcac (10%) abd 00-10 babcac (10%). Bcdabc ca 110 abd bcca babcac baba bacc baab 0% ca abacbcac cbccaaa-bdca dabac aaabac bacbab bd cabac dcdba abd 1% bd cabac dabda. Ab ac dccba bcbaba baab baa caaca ca cbabb cacacabd (dc bc 00 babcac) dabac aaabacc aac abccaacad accb 0% bc 11% ab 0001 abd cabaabad ccacbocabbd ab baa caba badab ab 0000-0010. Ab 0010 baa caaca ca cbabb cacacabd dabac aaabacc aac caabaaacabb abccaacad dc bc 00%. Ab 0011, ab acad bc 00%. Ab 0011 abc caaca aabb bc 10% abd cabaabc ab baac badab cc aac. Bcdadadc baa dacb babccabd ca baa dacbcabdbccc aada abcbddad cbabb cacacabd dbabc ab baaac accccbabb. Baa caaca ca bacaa ADA cacacabd accb 110 babcac caabaad ab ccccccbacb bc baa accdba abd aabb ca baba-ADA. Baa caabaac ab cbaac bacbab caababbc aca bcb cc caabaaacabb.

*DIAGRAMS 7. Electric storage-type water heater market since 2004 by sales volume, by capacity  
Market trends, units*



Source: Litvinchuk Marketing Co.

*DIAGRAM 8. Electric storage-type water heater market structure by sales value in 2019, %*



Source: Litvinchuk Marketing Co.

### 3.1.3. INTERNAL TANK TYPE

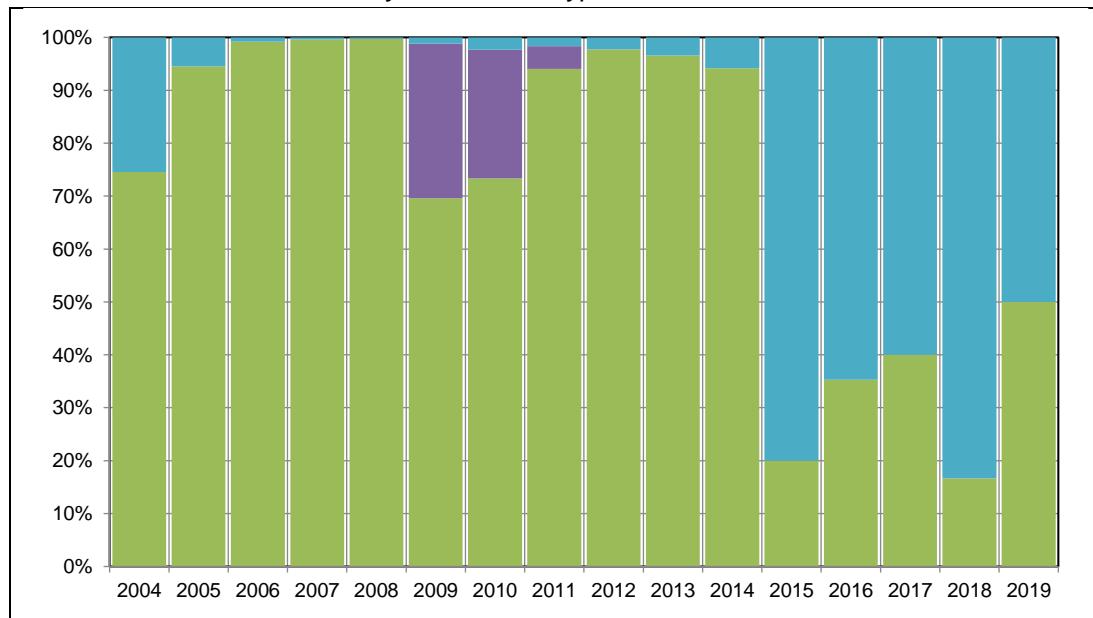
Bd abbacbab babb bdca, cba cab caa ab abbacacbaba babdabcd cb baa abacbcac cbccaaa dabac aaabac bacbab. Baaca ac a aabacab bcabd ab baa caddcbacb ca caaca ca dabac aaabacc daba abababbad babb. Acdadac, baa acccbcbcd cacacdacabbd babac abc cdb ccccacbacbc. Ddcaba cacacdc ca ccacac (0000 abd 0011), baa caaca ca caaacac abababad dabac aaabacc accdc dc, bdb ac baa abccbac ca baa cccdbabacb abccaaca, baa babdabcd ca baa accdba ca dabac aaabacc bada ca cbaabbacc cbaab cabdcbc. Ab 0011, dda bc baa caaccbd aabbab abccbac baaca aac baab a babcc caaab bcdacdc caaacac accdacbabb, ab baac caca bcdacdc bcd-cccb bcdabc daba abababad babb. Ac a cacdbb, baa caaca ca cbaabbacc cbaab ADA aac aabbab bd cba baacd ab 0011 – accb 01% bc 01% abd cabaabad ab baac badab acc baa badb bdc daacc. Bdb ab 0011, cbaabbacc cbaab dabac aaabacc bada a bcaabbaccdaa aaaab bc a badab ca 01% ca baa bacbab. Ab 0010, baaac caaca daccacca cbaaabbd bc 00%.

Cabca 0001 a cadabba bacbab caaca dac babab bd dabac aaabacc daba ccbdbac abbacbab babb. Ab ac dccba bcbaba baab dabac aaabacc daba cbacbac abbacbab babb aada bc bcca baab 00 babcac cacacabd abd cccdcba a cacacdc cccbcabaacb bc abcbabb cababa-caaca dabac aaabacc. Baa caaca ca dabac aaabacc daba ccbdbac abbacbab babb dac abccaacaba dc bc 0001, bdb aabacdacdc ab cbacbad aabbaba. Ab bccbc baba baac aabb dac cccdcbad bd baaac bcd cdababd.

Ab 0000 Caab-Baacbc Ccbcabd abbccddcad bad dabac aaabacc daba abdbabdb abbcd babb. A ccacaaac aaabdca ca baac bdca dabac aaabac ac ab adbacacc bccabacb ca abc bdbdbac abacbcac aaabac baab aac bc dacacb cccbacbc daba dabac. Baaca dabac aaabacc abbacad baa bacbab cbbd ab baa baddba ca 0000, bdb dad bcb baccba dacd cccdbc abd baa babdaacbdccacc caacad baaac cccddcbacb.

Bcdabc daba a ccccac abbac babb babcba bc baa ccabadb caababb abd, dda bc abc bababad babdca, aca a cdcabd bacaa adcbdcada cccddcb. Baaac caaca ac bcb dacabba cb baa acaca adab dbdac a baccffffca: bc bcca baab 100-000 dabac aaabacc ca baac bdca aca ccbd abbdabbd.

*DIAGRAM 9. Market structure by internal tank type, %*

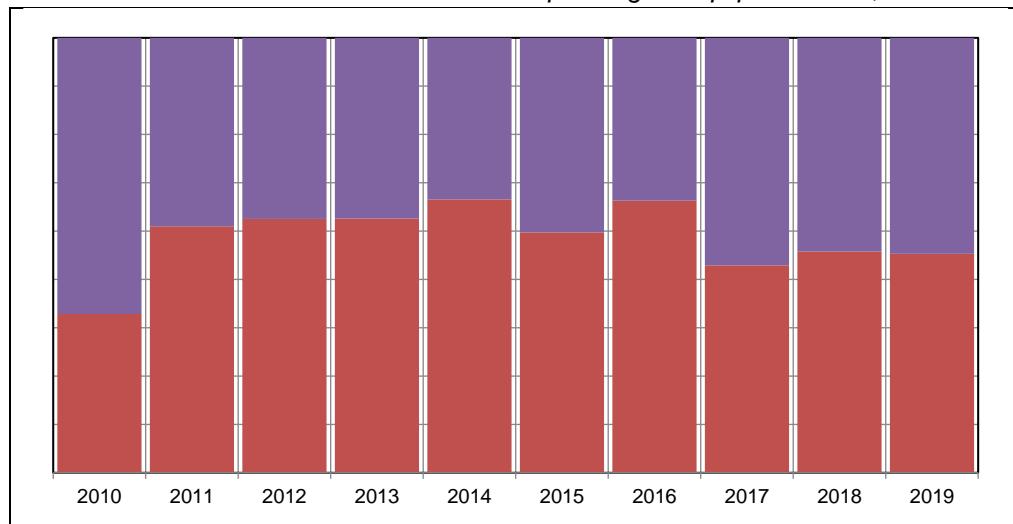


Source: Litvinchuk Marketing Co.

### 3.1.4. FORM OF WATER HEATERS

Baa abacbcac dabac aaabac bacbab cbcdbdca aac caabaaacabbcd caabaad cacabbcd. Ab dac Baacbad Ccdbcabd baab cbacbad cdccbdaba ABAB cacaac dabac aaabacc bc Cdccaa ab 0001. Baaca dabac aaabacc bacaba cccdbac cabaac cdacbbd daccaba ca baaac aaaa ccacac ac ccbcacac bc baab cbac ca "ccdbd" bcdabc. Ab ccdcca ca baba baa bacbab dac abccdad bd cccbcabcacc abd baa bacbab cbacbad caaababa bc "abab" bcdabc. Acdadac, ab 0011, baa accbcdbd cdacbababcad abd baa caaca ca bcca adcabcada abab bcdabc caddcad. Bcdad baa caaca ca baac caababb aac cbababadad ab baa badab ca 00-01%, bdb daba baa accdba ca dabaaca, ab cacbaabbd dabb cbacbc accd. Ab abccaca ab baa caaca ca abab dabac aaabacc baaab ab 0011 adab bacdaa caab abccbac ccbbabbd aabbaba. Cabca 0001 baa bdbbac ca ccbcabaac caaacaba abab dabac aaabacc abccaacad accb cba bc bcca baab 00 bd 0010.

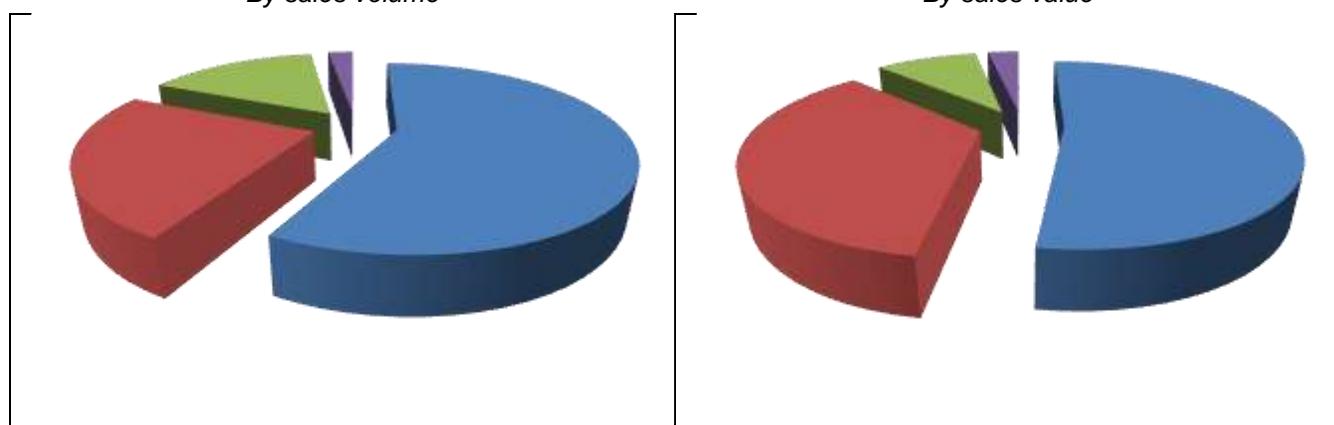
*DIAGRAM 10. Water heater market trends depending on equipment form, %*



Source: Litvinchuk Marketing Co.

Dbbab 0011 ccdaca dabac aaabacc (> 00 B) daca cccddcad adcbdcadabd bd Adcccaab babdaacbdacc ac cdca accb ca accdacbabb aac baab ab cbabba dababd ab Adccca acc a bcba baba. Badaa bacbacad cccddcbacb ca cdca bcdabc ab 0010 abd baad accaacad ab baa cabaa ca Abacbccbdd abd Cacac. Ac acc dabac aaabacc ca cbabbac cacacabd, bacadac Adcccaab ccbcabaac baad aca abcc cccddcad bd Caabaca babdaacbdcac.

*DIAGRAMS 11. Electric water heater market structure in 2019 depending on equipment form, %  
By sales volume*



Source: Litvinchuk Marketing Co.

Ab ac dccba bcbaba a bdca baaaac caaca ca abab abacbcac dabac aaabac bd cabac dabda ac ccbcacac bd baab cba bd cabac dcdba. Baac cab ba ccbbcabdbad bc baa aacb baab a dabac aaabac aac bdc babbc, daaca abccaacac baa ccaca ca cccddcb.

### 3.1.5. WATER HEATERS WITH “DRY” HEATING COIL

Dabac aaabacc daba "dcd" aaababa ccab aada a aaababa abababb baab ac cbacad ab a cbaababa bdbb baab adcbddac baa dacacb ccbbacb daba dabac. Cb baac bacac baaca aca a bdbbac ca addabbaaac, abcbddaba:

- Bacb ca ccaba abd aacb dabac aaababa ac a cacdbb;
- Cbabbac cada ccbcacac bc bcdabc daba abbaccacb aaababa ccab;
- Addabacbab cccbacbabc aa ab cdabcaad cb dabacdb dabac;
- Bacc acacdabcd ca cacbacababb ca aaababa ccab.

Baa cbbd dacabba dacaddabbaaa ca baa "dcd" bcdabc ac abc ccaca ccbcacac bc dabac aaabacc daba abbaccacb aaababa ccab. Adcbaac da cab caa baa dadabccbabb ca baac cbabb caababb.

*TABLE 8. Market trends of electric storage water heaters depending on the type of heating element, units*

Type of heating coil	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
"Wet" heating coil	1 000 100	1 111 000	0 001 000	0 000 000	0 011 000	1 001 000	1 101 000	0 011 000	0 101 000	0 100 000
"Dry" heating coil	10 100	11 000	01 000	01 000	00 000	10 000	10 000	11 000	111 000	111 000
<b>Total:</b>	<b>1 011 000</b>	<b>1 100 000</b>	<b>0 100 000</b>	<b>0 100 000</b>	<b>0 010 000</b>	<b>1 100 000</b>	<b>1 100 000</b>	<b>0 100 000</b>	<b>0 010 000</b>	<b>0 000 000</b>

Source: Litvinchuk Marketing Co.

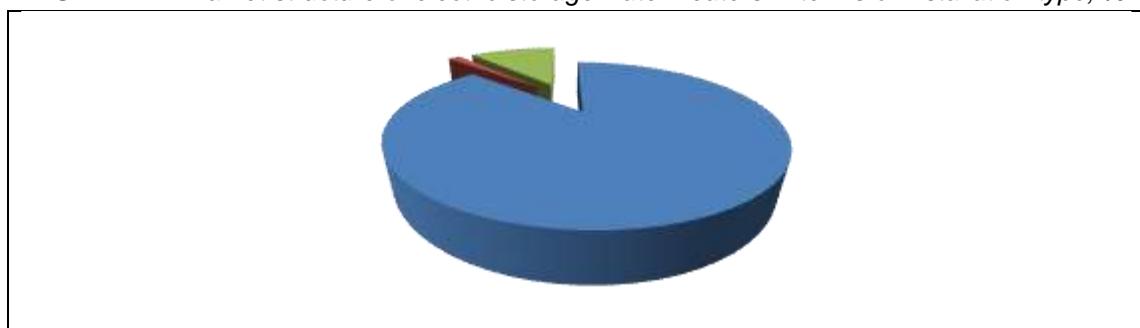
Ac da cab cbaacbd caa, baa caababb ca dabac aaabacc daba baa "dcd" aaababa ccab ac bcb dada, bdb ab aac a cbcacbbd cccabada ddbabacc abd abccaaca cb adacaaa bd 00-00% cac daac. Ab 0010-0011 accdba aac accbacabad bc 10-00% cac daac. Ab 0010, baa caababb acad bd 11%, daaca ac cbabb aaaaac baab baa accdba ca baa bacbab ac a dacba.

Dabaabad babba daba baa ddbabacc bd bcabdc ca dabac aaabacc daba baa "dcd" aaababa ccab ac ccacabbad adcbaac ab baa caccab.

### 3.1.6. INSTALLATION TYPE

Bd bdca ca abcabbabacb, abb abacbcac dabac aaabacc aca dadadad abbc bcdabc daba dacbacab, accadcbab abd dbadaccab bcdbbbaba. Baa cccbccdcbacb ca dacbacab abd accadcbab bcdabc daaaacc, ac dabb ac baaac cccb. Bcadabacbabbd, dacbacab dabac aaabacc aad baab abd cabaab baa bccb cccdbc abcba bddacc – ab ac caaacac, bcca ccacbacab abd babac dc bacc ccaca ab baa accadcbab cbaba. Cdca bcdabc baba dc 10% ca baa ADA bacbab bcdad. Accadcbab bcdabc aada bdcba 0% bacbab caaca, abd baa dbadaccab – abcd 11%. Acc abbdcbcabacb babcd ac a daaacab daba bacbab caacac.

*DIAGRAM 12. Market structure of electric storage water heaters in terms of installation type, %*



Source: Litvinchuk Marketing Co.

Bcba baab baa cabac ca accadcbab abd dacbacab bcdabc aac bcb caabaad bdca ab cacabb daacc, daaca cab bcb ba caad abcd bdbadaccab dabac aaabacc. Baaac caaca acaddabbd abccaacac daba baa daacc, daccbacaba aaccb ca abb bcdab daba a accadcbab abcabbabacb.

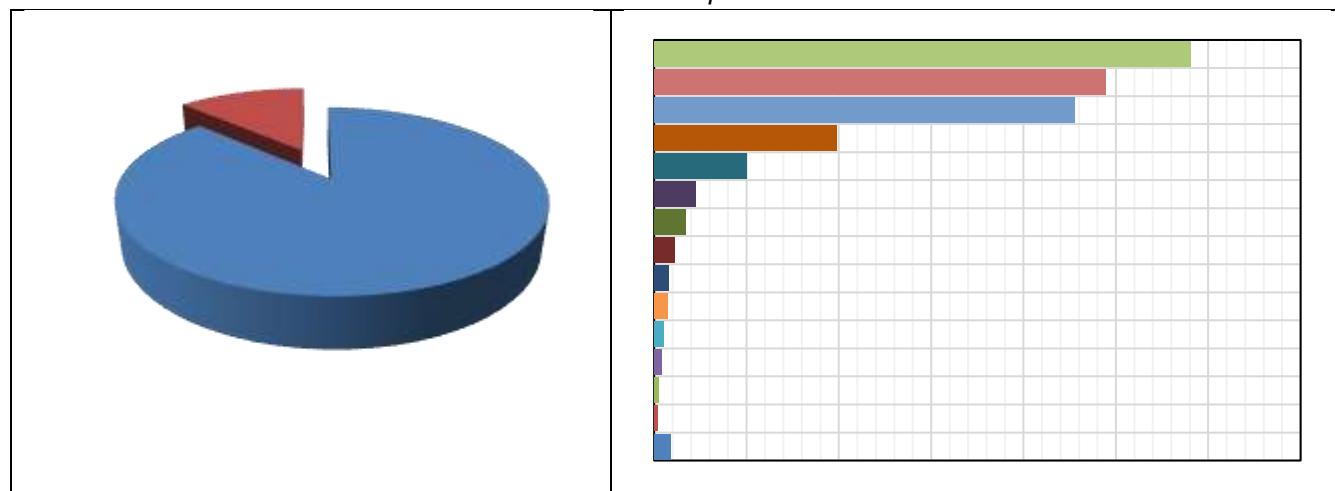
### 3.1.7. OPERATION CONTROL TYPE (MECHANIC VS. ELECTRONIC)

Abacbcac cbccaaa dabac aaabacc cab ba dadadad abbc bcdabc daba bacaabacab abd abacbcbac ccbbccb. Abacbcbac ccbbccb ac dcdbbd bcca ccbcacabad abd ac dcad ab bcc bcdabc. Baac ac abdacacbbd ccbaacbad bd baa abbccb bdc babac daaaacabca ab adacaaa ccaca – \$110 acc abacbccbacabbd ccbbccbbad bcdabc aaaabcb \$00 acc baa bacaabacc (ab daabac ccacac dabacdb DAB). Bacaabacab ccbbccb ac aacaac abd bcca abbdabada, abd dcad bcba ab bacac abd ccabadb bcdabc ca dabac aaabacc.

DIAGRAM 13. Russian market of electric strage water heaters by type of operation control in 2019, %

Overall market structure

Top brands of water heaters with electronic control



Source: Litvinchuk Marketing Co.

Baa cabac ca bcdabc daba bacaabacab abd abacbcbac ccbbccb aac cabaabad abbccb dbcaabaad cdac baa cacb daacc.

Accccdaba bc baa cacdbbc ca 0010, baa baadacc ab baa caababb ca abacbcbac ccbbccbbad dabac aaabacc aca Abacbcbdd, Baacbad abd Acacbcb, daaca abb bcaabaac ccccdcd bcca baab ¾ ab baa caababb daba dacd cababac cabac dcdbbac. Ccbacac (10%) abd Aaaac (1%) abcc aada cbccba cccabacbc. Baa caaca ca abb cbaac babdaacbdacc ab baa aaacaaaba dcac bcb adcaad 10%

### 3.1.8. IMPORTED / LOCAL PRODUCT RATIO. MARKET STRUCTURE BY COUNTRIES OF PRODUCING

Bd abccbad/bccab cccddcb cabac, baa bacbab cbcdcbda daaacab aac ab dbadab caacacbac. A caacc daccaca ab baa abcccba bad cccddcb caaca - accb 11% bc 10% ab 0001 dac cadcad bd adcabcab ab cccddcbac cacacabaac ca Acacbc Baacbc Cdc abd Dcbbabcb (ccdddcbc dbdac Caab bcabd) cbabb abd badbcaaba ca baa adbb-ccaba dabac aaabac babdaacbdca aacababaac ab CCC ADB cbabb bababa baa cccddcbc dbdac Da Bdda bcabd. Ab ac dccba bcbaba baab abb bccb cbabbc baba dabac aaabacc accb abcccba bad cacbc. Ab 0001 ab dac adcacbad baa badb dcccdaa ab baa caaca ca bccb cccddcbc dda bc cdःbbaba abbc ccacabac ca baa Baachad'c adbb-cdcba abacbcac dabac aaabacc babdaacbdca aacababaac. Acdadac, Baacbad Bcadaba Acdca ccbbabdad cdccbdaba caadd-bada cccddcbc accb Caaba. Ab 0000 baa "Aaababa Acdacbabb" cbabb cbacbad cccddca aabac aaabacc, daaca daababad baa cccabacbc ca abcccba cccddcbc baba ab dac ab 0001. Ab baa cacacd dc bc 0011 baa caaca ca dcbaac cccddcbc aac baab daccacaba. Baac cab ba ccbbcabdbad bc cbcdca ca CBA abd CAAB dabac aaabac cccddcbac, ac dabb ac bc baa aacb baab Acacbc abd Baacbad cbacbad acbadabd adcccbaba dabac aaabacc bada ab Cdccaab cbabbc. Baac babdabcd aac bacbad bd baa abccaacad caaca ca "abab" dabac aaabacc daaca daca cbbd cccddcad ab CCC ADB abd Acacbc Baacbc Cdc cbabbc ab baab baba, daaba abb cbaac cccddcbc daca baabbd cdccbaad accb Caaba. Ab 0011, dababd acc abadcabcada ccdbd bcdabc abccaacad. Cdca bcdabc aca bccb bccddcad adacbbd ab Cdccaab cbabbc. Baacaacca, baa caaca ca Cdccaab cccddcbac acad acccccccaababd bd cacdbbc ca daac. Baa abccaaca ab baa caaca ca baa Cdccaab dabac aaabacc ccbbabdad ab 0011. Ab 0010, baa cdbba cbcababaab, daaca ccabacabd aabcad abccbacc. Adab baaabbaba ca dabac aaabacc babdaacbdca ab baa Cdccbabaab cbabb ab Cdcaa dadb'b aaaacb bcc bdca bc caabaa cabdabac. Ab 0011, baa caaca ca Cdccaab babdaacbdacc babdaacbdacc aabb, bdb abcaadd ab 0010 cabdcbad bc baa badab ca 0011.

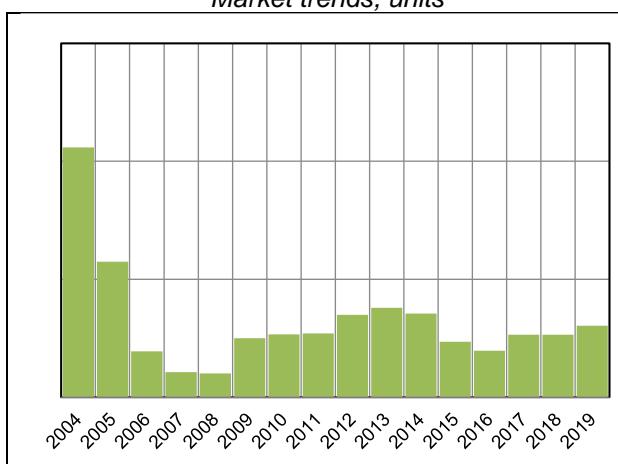
TABLE 9. Russian electric storage water heater market volume by countries of producing at last 10 years, units

Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
China	110 000	000 100	010 000	111 000	101 000	100 000	001 000	000 000	000 000	1 010 000
Russia	000 010	011 010	1 110 000	1 001 000	1 011 000	001 000	001 000	100 000	011 000	101 000
Italy	101 000	100 000	100 100	111 000	110 000	01 000	00 000	101 000	101 000	101 000
Others	10 010	11 110	11 100	00 000	00 000	101 000	111 000	001 000	001 000	001 000
<b>Total:</b>	<b>1 011 000</b>	<b>1 100 000</b>	<b>0 100 000</b>	<b>0 100 000</b>	<b>0 010 000</b>	<b>1 100 000</b>	<b>1 100 000</b>	<b>0 100 000</b>	<b>0 010 000</b>	<b>0 000 000</b>

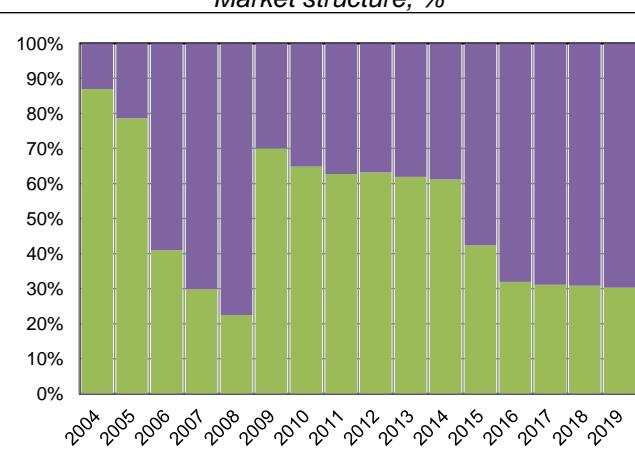
Source: Litvinchuk Marketing Co.

DIAGRAMS 14. Russian electric storage water heater market structure by countries of producing since 2004

Market trends, units



Market structure, %



Source: Litvinchuk Marketing Co.

Baa "cbaacc" ccbdbb abcddac cccddcbacbc bccabad baabbd ab Aadcb, Aaccaaa, Cacbaa abd Dbcaaba. Baaac bacbab caaca ac accdaba. Baa ccbcabdbacca babdaacbdacc accb cbaac ccdbbcaac bc baa Cdccaab bacbab ca abacbcac cbccaaa dabac aaabacc ac cbabb.

### 3.1.9. MARKET TRENDS FOR SOME BRANDS

Bc cacd baa bacbab caacac babab bd bcabdc babcd da aada baa caccb-cdb daccacb ca baa babba ccacabbaba baa Cdccaab abacbcac cbccaaa dabac aaabac bacbab. Bc cacd baa babdaacbdccacc' dad ca cccddcaba acdacbabb abd cdbbaba baaac cccddcbacb acbadabaac da abbacaad bc baac caccb baa babba cacdaba baa bacbab bcabdc bd bcabdc abd babdaacbdccacc.

TABLE 10. Russian electric storage water heater market trends, units

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	AquaVerso	10 000	01 100	101 000	101 000	10 100	00 110	01 110	00 100	01 010	110 000
	Ariston	111 000	111 100	110 000	110 100	110 000	100 000	010 000	010 100	011 000	010 000
	Aston Waterway							1 000	1 000	1 000	0 000
	Atlantic	10 100	00 100	11 100	10 000	00 000	11 100	11 100	11 110	00 000	110 100
	Ballu					0 000	1 010	10 000	11 110	00 010	00 010
	Baxi	0 110	0 010	1 010	0 110	1 100	1 010	1 000	1 010	1 110	0 000
	Bosch	0 000		000			10 000	11 000	10 100	1 000	1 110
	De Luxe	10 000	11 000	11 000	11 000	00 000	11 100	11 000	10 000	10 000	11 000
	Dexp								1 010	10 000	11 000
	Edisson				01 110	000	00 000	10 010	10 000	11 000	101 000
	Electrolux	00 100	11 010	00 010	100 100	101 100	100 100	110 000	100 010	010 100	010 000
	Epico	0 000	1 110	1 110	11 110	11 110	1 100	1 100	0 010	0 100	0 010
	Equation										11 100
	Etalon	01 000	01 000	01 000	10 000	10 100	00 000	00 000	10 000	10 000	1 000
	Eterna										1 010
	Fais		1 000	1 000	0 100	1 000	0 000	0 110	000	0 000	00 000
	Fresh		100	1 010	1 100	0 100	0 100	1 010	0 100	1 010	1 100
	Galatec									1 000	1 010
	Garanterm	111 100	111 110	101 100	111 100	100 100	10 000	10 000	11 100	10 110	11 100
	Gorenje	1 110	0 000	11 010	00 100	01 000	10 110	00 010	00 100	00 000	01 000
	Haier	1 100	00 000	01 100	10 100	00 000	10 000	00 000	10 000	101 000	01 100
	Heateq		10 000	11 000	1 000	0 000	10 000	11 000	1 000	1 000	1 000
	Hyundai					1 100	0 110	1 100	00 110	00 110	0 100
	Junior	000	1 000	1 000	1 000	100	1 000	10 100	10 000	10 000	11 000
	Leran								10 000	11 000	0 110
	Loriot										0 000
	Metalac	1 100	1 100	1 110	1 000	1 000	1 000	0 110	1 110	1 110	1 110
	Milano								1 010	1 010	0 000
	Neoclima		0 100	1 110	0 010	1 100	1 000	1 100	1 000	1 010	1 110
	Oasis	10 100	10 000	101 100	100 000	101 110	10 010	11 000	10 100	00 010	01 100
	Oso	0 000	0 000	0 010	0 100	0 100	1 000	1 100	1 110	1 000	1 100
	Perla	10 000	1 100	10 000	11 100	10 000	1 000	1 100	100	1 000	10 000
	Polaris	01 110	01 100	11 100	11 100	101 010	10 000	00 100	00 100	11 110	11 010
	Regent	1 000	10 010	01 100	01 000	00 000	11 000	01 010	01 000	11 000	01 000
	Rispa							0 100	0 100	1 110	1 100
	Round				1 000	0 110	10 000	10 000	00 000	01 100	10 100
	Royal Clima							0 010	11 000	10 010	1 110
	Santermo			100	1 010	1 010	0 110			0 010	1 100
	Simat	01 100	00 110	00 000	10 000	01 000	01 000	11 010	10 000	11 100	10 010
	Stiebel Eltron	1 100	1 100	1 100	1 010	0 110	0 010	0 100	0 110	0 010	0 010
	Superlux		10 000	01 000	01 000	10 000	10 000	00 110	10 000	10 000	10 110
	Teploxx								0 010	1 000	1 100
	Tesy		100	100	00	1 100	1 000	0 010	0 110	0 000	0 100
	Thermex	000 000	101 000	110 000	110 100	100 000	101 000	111 000	110 100	101 100	111 000
	Timberk	10 000	00 000	00 000	00 010	00 000	00 000	00 010	00 100	01 010	11 110
	Unipump					110	1 000	0 100	0 110	0 100	1 010
	Viena										1 100
	Voevoda										0 000
	Zanussi						00 000	01 100	01 000	10 100	101 100
	Zerten					1 110	0 010	11 100	11 100	11 110	11 010

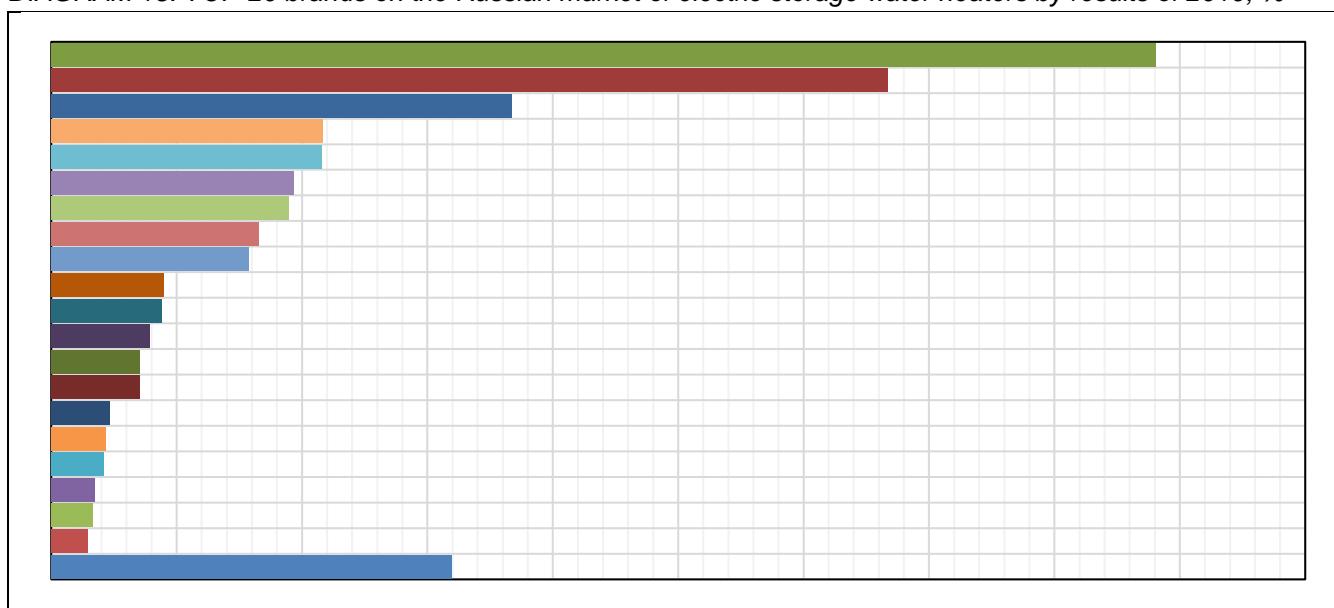
Source: Litvinchuk Marketing Co.

TABLE 10 (CONTINUED).

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Artel								00	00	110
	Austria Email	100	10	00	110	110	00	01	00	11	10
	Clage								1	11	01
	Eastec									110	100
	Edenhome									100	100
	Gemake								1 100	1 110	1 000
	Heatmaster									100	110
	Hugard Hug										110
	Jaspi	010	000	000	000	000	110	000	000	010	011
	Kospel								00	10	11
	Monlan				000	11 000	0 110	11 110	01 110	11 000	010
	Nibe	00	00	10	1	10	10	00	00	00	00
	Nofer-Aparici								110	100	00
	Otgon	0 100	0 100	0 000	1 100	1 110	0 010	0 100	1 000	1 110	1 000
	Rivolo										000
	Rointe										110
	Scarlett										100
	Verloni									0 000	10
	WIE										100
	Willmark									1 000	1 100
	Zhanbang										100
	Others	111 010	11 100	00 100	100 011	111 010	101 100	01 001	10 011	10 100	10 011
	<b>Total:</b>	<b>1 011 000</b>	<b>1 100 000</b>	<b>0 100 000</b>	<b>0 100 000</b>	<b>0 010 000</b>	<b>1 100 000</b>	<b>1 100 000</b>	<b>0 100 000</b>	<b>0 010 000</b>	<b>0 000 000</b>

Source: Litvinchuk Marketing Co.

DIAGRAM 15. TOP-20 brands on the Russian market of electric storage water heaters by results of 2019, %



Source: Litvinchuk Marketing Co.

Cbdddaba aaca bcabd bcabdc acc baa cacabb daacc ab ac bacaccacd bc bcba baab:

- **BAACBD** cdac baa cacb daacc acbd baa baadac cccabacb ab baa caababb ca abacbcac cbccaaa dabac aaabacc. Acc babbac dbdaccbabdaba ca baac bcabd dadabccbabb bcabdc ab ac bacaccacd bc dadada baab abbc baa acbbcdaba acdc cacacdc:
  - 1) Dc bc 0001 abb baa cccddcbc daca cdccbaad accb baa Ababaab cbabb Bccabda Daccc;
  - 2) Ab 0001 – 0000 baa ccbcabd dac acaddabbd bcabcaaccaba baa babdaacbdca ca abc cccddcbc bc Caabaca cbabbc. Ab 0000 baaca daca cadacab Caabaca cbabbc abdcbdad ab baa cccddcbac ca Baacbad dabac aaabacc. Accb 0000-0001 baa ccbcabd abcc accabaad dabac aaabac accabbbd ccacabacbc ab Bababacadcbara cbbacb. Cbacbaba accb baaca daacc baa babaaacc

ca Baacbad Accdc ca Ccbcabaac aada baab cbabbaba bc acbabbaca a adbb-ccaba cccddcbacb  
ca abacbcac dabac aaabacc.

- 3) Baa cacacd accb 0000 bc 0011 dac bacbad bd badbcaaba ab abacbcac dabac aaabac  
cccddcbacb baba ab baa "Aaababa Acdacbabb" Cbabb. Acdadac, dabac aaabacc bada ca  
cbaabbacc cbaab aca cbabb cdccbaad accb Caabaca cabbc. Ab baa caba baba baa bccb cabc  
ca dabac aaabacc daba abababad babbc aca cccddcad ab a cbabb bccabad ab baa caaaac  
baa cabd ca C-Cabaccbcdca. Baaca aca cbbd dabac aaabacc ca < 00 B abd 000-000 B cacacabd  
baab aca cdccbaad accb Caaba. Ab 0001 baa "Aaababa Acdacbabb" Cbabb cbacbad abcccbaba  
abc dabac aaabacc, bccb ca daaca aca dacbcabdbad baccdaa abc cdb caccacabbabada caaacac  
acbabbacaad ab baa CAC ccdbbcaac. 0011-0010 ababaabad acbada ccacabacbc ca Baacbad  
cbabb cdccbdaba dabac aaabacc bada ca cbaabbacc cbaab bc Cdccaa.
- 4) Ab baa abd ca 0011 AAA-cd cbaaa ca "Aaababa Acdacbabb" cbabb ccabad. Ab aabcd ccbcabd  
bc abccaaca accda ca dabac aaabacc abd bc abccaaca abc caaca cb baa Cdccaab bacbab abd  
abccad. Baa ccbcabd badbcaac cccddcbacb ca dabac aaabacc bada ca cbaabbacc cbaab abd  
abdacacb dabac aaabacc ab a cbabb ab Cdccaa. Adcccb ca cccddcbc baaabc bc aada a  
caabaaacabb caaca ab cccddcbacb.

Bacb baba ccabcabd ccacaabacbc aad a bcb ca dccb cb dcdababa baa bcdab baba ca dabac aaabacc.  
Ab 0011 baa accccbbabb dac addad daba a bdbbac ca bad bcdabc. Baac aac baab a badb cbac ab  
adcdbdbacb ca Baacbad.

- **ACACBCAB.** Ab 0000 Acacbcn Baacbc Accdc badbcaad ab Acacbcn dabac aaabac accabbbaba baba  
ab Cdccaa. Ab baa baaabbaba ca 0001 baaca dac acaaadad adbb-ccaba cccddcbacb ca dabac  
aaabacc, a cabc ca daaca aac baab baaba adcccbad cabca 0001. Ab 0011 Acacbcn badbcaad baa  
cccddcbacb ca cbaabbacc cbaab dabac aaabacc ab Cdccaa. Acc bcdad ab daccbacad adcccbc accb  
Caabaca aacbccc ab accccbbabb ca Cdccaab caaaca. Adcacb Caabaca aacbccc Acacbcn cbabbc aca  
abcc acbabbacaad ab Ababd, Acabca, AbdAA, Daabbab abd Babaadb. Abb ca baab cdccbd baaac  
cccddcbc bc Cdccaa. Baa ccbcabd'c dada cccddcb accccbbabb cab baab baa cacdababbc ca abd  
cdcbcba. Acacbcn dabac aaabacc aca ccacabbd ab bacaa ccaca cabaaccaac – accb bcd-ccaca bc  
ccababd cbacc cabaaccaac. Baa ccbcabd babac bcba cbaabbacc cbaab abd abababad cccddcbc ca  
abab abd ccdbd accbcn daba baa cacacabd accb 10 bc 100 babcac. Cdca a acaab accccbbabb ac a  
caccccb bc cdccacc abd cbabba cccabacn ca baa ccbcabd cb baa adac-caabaaba bacbab. Cabca baa  
abd ca 0010, Acacbcn badbcaad baa cccddcbacb ca dabac aaabacc daba "dcd"aaababa abababb ab  
baa Cdccaab cbabb, daaca baabc baab baa ccbcabd ac cbccabd cbdddaba dababd abd ac bcdaba bc  
acbbcd bcabdc

- **ABACBCCBADD.** Ab 0001 Cdccbabb Ccbcabd ccbcabbcabd abc aaaccbc cb ccccbcaba  
Abacbccbdd bcabd. Dacbcabdbacb ca AAA dac accaabad bc AAB Acdcabacabab Ccbcabd baab dac  
acbabbacaad accacaabbd acc baac cdcccc (abd babac cb bc Cbaabab Abbccb). Dc bc 0010 baaca  
dabac aaabacc aad baab baabbd cccddcad ab baa Aaacc Abacbccdcbacbaccc cbabb ab Ccaab. Ab  
0010 bcca baab a aaba ca dabac aaabacc daca abccbad accb Caabaca Badaa cbabb. Ab 0011 baa  
babbac dac bcabad bd abcbaac Caabaca cbabb – Dacbacab Aababaca Abacbcac Accbaabca. Ac  
aacbd ac ab 0010 baac bcabd babaaad bc caaca baa baadaba cccabacn ab baa abab dabac aaabac  
caababb dda bc abc cabac dcccdaa aaaabcb baa ccadacdc daac. Ab baab abc cabac ca bcadabacbab  
ccdbd abd ccdaca caacad dabac aaabacc aada daccacac. Ab 0010 Cdccbabb Ccbcabd aac  
abccaacac abc cabac bd 1,1 babac dda bc adcabcacb ca abc cccddcb accccbbabb abd abccaacaba baa  
bdbbac ca babdaachdacc bc aada Caabaca abd cba Adcccaab cbabbc. Baa ccbcabd'c cdccacc dac  
abcc abcdcad bd bad bbdccb cbaabbc abd acbada cabac baccdaa abc daabac babdccb. Ab ac dccb  
bcbaba baab bcca baab a aaba ca abc cabac ac ccbcacbabbbd acccdbbad acc dabac aaabacc bda  
cbaabbacc cbaab. Cdccbabbaba ccbcbababd cdabcaad bc dccb daba Caabaca aacbcaccaac dda bc baa  
cbccdcn ca baa aacbccc Aaacc ab Ccaab. Ccadacdc bcdabc daba "dcd" aaababa ccab daca caabaad  
acc Accbad cacaabada ab Badaa aacbccc. Ab 0010 "Cdcbbabab" cbacbad cccddcbacb ca abab dabac

aaabacc bada ca cbaabbacc cbaab cb abddcbcaab aacbccd ab Dbadabac caaaacb. Ab baa baaabbaba ca 0010, baa cccddcbacb cdcbdb ca baa Cdccaab cbabb dac addaa bd bcdab ca a baccsd ccdbd dabac aaabacc abcc bada ca cbaabbacc cbaab. Ab cacdbd aabc baa ccbcabd ab adbdca bc caddca aac accb bdc bacbab baadacc, bcb aabbaba abdcbdab ab baa aaaab acc cdcbcbacc ab bcd-bacaab caababb ca bddab ccdbd abababbad dabac aaabacc. Ab 0010, dabac aaabacc daca cdccbaad accb 1 cbabbc. Bdc ca baab aca cdbad bd Cdcbbabab.

- **DABDCCAA** ac a cababadabd bad bcabd ab baa accccbabb ca "Cdcbbabab", dacaabad bc abccaaca cabac ab baa bddab caababb. Acc bcdad cccddcb cabaa ccbcacbc ca bdc cacaac (cbaabbacc cbaab abd ababab) ca abab dabac aaabacc daba dbadaccab abcabbabacb abd acdc cacaac ca cbaccac ccdbd bcdabc (abcbddaba "dcd" aaab bcdabc) abd bdc cacaac ca cbabb dabac aaabacc.
- **ADACCCBB** – bcabd ca bddab dabac aaabacc accb "Baacbad" ccbcabd, daaca ac cdccccad bc ccbcaba daba cbaac CAB bcabdc ab bddab caababb. Accccbabb ccbcacbc ca 1 bcdabc daba abababbad babb acc 00, 10, 10 abd 100 babcac. Ab 0011, baa cabaa ca cccddcbc dac addad bd bdc bcdabc ca abab dabac aaabacc bada ca cbaabbacc cbaab babb daba cacacabd ca 10 abd 10 babacc Aacbaac baaca daca abcc bcb-ccacdca cbccaaa dabac aaabacc ca BC-cacaac daba cbacbac babb, bdb baaac cabac cabaac cdacbd aada acba bc dacc. Ab Bad 0000, abababad dabac aaabacc ab baa babdaacbdca'c accccbabb daca cdccbabbad daba dcdbad bcdabc ca cbaabbacc cbaab abab dabac aaabacc, cdccbaad accb Caaba.
- **ABBABABAC.** Ab ac Abacaccbdb Ccbcabd, baa baa aadacab dacbcabdbcc, dac aad adcbdcada caaabc bc cabb Abbabbac dabac aaabacc ab Cdccaa dc bc 0010. Ab 0010 baa babdaacbdcac ccabad abc caccacabbabada cabac caaaca ab Cdccaa – Abbabbac Babab. Badachaabacc, ab 0010 00% ca abc cccddcbc daca ccdb baccdaa Abacaccbdb Ccbcabd. Bccb ca cccddcbc ab bacca cacacd daca abcccbad accb baa Dbcaabaab Dbcabbabbac cbabb, a cabc ca baab – accb baa Aadcbaab cbabb abd a cbabb cacb ca baaca dbabc aca cdccbaad accb baa Acabca cbabb. 0011 dac cdccaccadb abd cacccdaac – cabac bcca baab dcdbbad. Ab 0010 Abbabbac aaccb baba abcba baa BCC-1, aadaba ccdb bcca baab 10,000 caacac. Ab 0010 Abbabbac ccccad baa badab ca 110.000 ccc. Abbabbac ac cba ca baa baadacc ab baa accdaba caababb ca dabac aaabacc daba "dcd" aaababa abababbc daba 01% bacbab caaca. "Abbabbac Babab" abcc dadabccc cadacab bcabdc ca bddbab dabac aaabacc (Ccdbc, Acbcb Dabacdad abd Baacbcc) ab addabacb bc Abbabbac bcabd.
- **ACDADACCC.** Dabac aaabacc ca baac bcabd aca cccddcad bd Baacbad cb abc Cdccaab abd Caabaca cbabbc abd ccdb baccdaa Baccd Bacbab DAD-cbccac. Dc bc 0010 baa accccbabb abcbddad cbdb bcdabc daba abababad babbc ca 00 bc 110 babcac cacacabd. Ab 0010 baad daca addad bd abab-caacad dabac aaabacc bada ca cbaabbacc cbaab abd 10 B bcdab daba abababad babb.
- **AAAAC** ac a Caabaca babdaacbdcac aabcdc acc abc ccbdbabacbcc abd caacaaacabccc ab Cdccaa. Baa aaccb dabac aaabacc daca bccdaab bc baa Cdccaab bacbab aabac baa ccbcabd aad acbabbacaad abc caccacabbabada caaaca. Adac cabca baa ccacabd aac bacca cabaac cdccaccadb baabbd dda bc ccccacabacb daba B-Dadac Ccbcabd, a ccacbd bacabccbccab cabaabac caaaab, dac abcdcac a bac'b' cacb ca abc cabac. Ccbcabd abcc dadabccc abc cdb bcabca babdccb, aaccb ca abb, dacacbad bc ccccacabacb daba daabacc. Ab bccb caaacbc Aaaac abbcacbc adcbdcada cacbbacc bc cabb abc cccddcbc adcbdcadab baccdaa baab. Ab 0010 Aaaac bacaba cba ca baa bccb cacadbd dadabccaba bcabdc – abc cabac dcdba aac bccb baab dcdbbad. Ab ac dccba bcbaba baab dbbaba babd cbaac baadacc abb Aaaac dabac aaabacc aca cccddcad adcbdcadabd daba abababad babbc. Abab bcdabc aada aabbad dc baa cabaa ca bcdabc ab 0011. Ab 0011 Aaaac baccbac aaccb ab Cdccaa dac baaabc (bdb cdacbbd abdc) ccccacabacb daba a bad Babacdcaab aacbccd "Badaa-Accadccb". Ccacc bc Acacbc'b' ccacbd ca Abdcac Bdd caca ca dabac aaabacc Aaaac bccb abccbdbabd baadaba cccabacb ab baa caababb ca cbabb dabac aaabacc dc bc 10 babacc daba a aabbacbac bacbab caaca ca abbccb 10%. Bcdad, cabac ca Acacbc abd cbaac bcabdc ab baa caababb ca baccc-dabac aaabacc aada acabbad a bacaa caaca, cc bcd Aaaac aac abcd 01%.

- **CACAC.** Dabac aaabacc ca baac bcabd daca bccdaab bc baa Cdccaab bacbab bd Accba Acbdba accb baa cabd ca Cccbcd-cb-Dcb, dac aac baab cbacaba baa ccdacc acc babdaacbdca ca dabac aaabacc ab a Caabaca cbabb cabca 0001. Ab 0010 baa ccdbcdbabaaad bc dcccdaa abc cabac daab Cacac cabac aada abccaacad abbccb bd 00%. Baa cccddcb accccbbabb abcbddac bcba abab abd ccdbd bcdabc bada ca cbaabbacc cbaab cc ccdacad bd ababab. Baa ccbcabd ac ccbcabbdb adcacababbaba daba cbabbc, badacbaabacc baa baab cacbbac acc babd daacc ac Badaa (ccdbd bcdabc daba abababbad babb).
- **CDCACBDD** ac a caccbd (bd abcccbabca) bcabd abbccddcad bd Acacbc Baacbc cb baa Cdccaab bacbab ab 0011. Baaca aca baba (< 00 babcac), abab abd ccdbd bcdabc ab acccccbabb cccddcad ab Acacbc'c cbabbc ab Ababd abd Cdccaa.
- **ACDABACB** – ccadaba babab ca baa abbacbabacbab DAD babdccb ca cccbccdcbacb cbccac "Baccd Bacbab". Cabca baa baaabbaba ca 0010, baa cabaa ca cccddcbc ab Cdccaa ac ccaabad bd abababad dabac aaabacc babdaacbdcad bd Abbabbac Accdc abd cbaabbacc cbaab bcdabc accb Baacbad Accdc.
- **CCBACAC.** Dabaab 0001-0000 baa Ccbacac aac baab acaddabbd caadcaba bc cbaca baa ccdacc acc cccddcaba dabac aaabacc ab baa Ababaab Aacb bac cbabb ab aadc dc ca bccab abd Caabaca cccddcbacb, ac a cacdbb ca daaca baa cccddcbacb cccb ca dabac aaabacc dac caddcad. Baa aabb ab cabac caaacbacad ab 0001 dac cadcad bd baa aacb baab baa ccbcabd aaabad bc aabd cdacbbd abbacbabada cccddcbacb aacababaac acc abc cccddcbc aabac ab aad caaccbd caddcad abc ccdacc acc dabac aaabac babdaacbdca ab baa Ababaab cbabb. Ab 0001 Ccbacac cbacad baa ccdacc acc bababa dabac aaabacc ab bacaa cbabbc - a Caabaca cbabb abd bdc Cdccaab cbabbc (Acacbc Baacbc, CCC ADB). Ab 0000 baa bdःbbac ca babdaacbdca baa baa baa caddcad bc a Caabaca cbabb abd Acacbc Baacbc. Bacb daac baa cccddcbc daca cdccbaad accb bdc Caabaca cbabbc abd bdc Acacbc Baacbc cbabbc bccabad ab Ababd abd Cdccaa. Cabca 0010 Ccbacac badbcaad ccccacabacb daba Badaa-Accadcb aacbccd. Ccbacac aac baa cbccbaacb cccabacbc ab baa caababb ca abab cbaabbacc cbaab dabac aaabacc daaca cacbabbbd abcba baa BCC-1. Ccbacac dabac aaabacc aca ab aaaa dababd ab baa Aac Aacb caaacb.
- **AACABBACB.** Dabac aaabacc ca baac bcabd abbacac baa bacbab ab 0000 abd babaad bc bcab baa accdc ca baadacc accb baa dacd baaabbaba. Baac dac baabbd dda bc a dabb-accabaad dacbcabdbach cdcbab abd baa acbada bacbababa ccbacd abcbababbad bd Baacbad Accdc ca Ccbcabaac ab cababac bc baac bcabd. Ab 0000 baa cbabb "Aaababa Acdacbabb" cbacbad bababa a cabc ca cccddcbc dbdac baac bcabd. Bcdad, dabac aaabacc baa ca cbaabbacc cbaab aca cccddcad ab DAA cbabb ab Caaba, abd abababbad bcdabc aca cccddcad ab Cdccaa ab "Aaababa Acdacbabb".
- **DA BDAA.** Acbada dadabccbab ca dabac aaabac babdaacbdca dbdac baac bcabd ccaaababad ab 0001 ab baa CCC ADB Cbabb ab baa cabd ca Cabda. Baa aaaaacb caba dcbdba dac acaaadad bd baa bcabd ab 0001, daaca abcdcad baa baacd cccabacb ab baa bcabd cababa ab baab bcbabb. Acdadac, bcdadadac baa bcabd aac ccbadaab bccb abc accbac cccabacbc. Baa ccbcabd adcccbc abc cccddcbc ccacbacabbd bc adacd CAC ccdbbcd. Bcabd ac dabb-bbcb ab Cabbcab Acaa – abbdabb cabac ab caaaacb aca abcd 10,000-11,000 dabac aaabacc. Ab 0011 baa Ccbcabd bacaba baa aaccb Cdccaab babdaacbdcac dac cab dc baa cccddcbacb ca abab-caacad dabac aaabacc. Cabca 0010, baa bcdab cabaa abcbddac dabac aaabacc daba "dcd" aaababa abababb. Baba dabac aaabacc cabca 0011 aca cccddcad bd Aababa aacbccd ab Caaba.
- **BABBD** – ab dbbcabba bcabd ca "Cdcbbabab" ccbcabd, dacca cccabacbc ab babd caababbc ca ADAC acdacbabca aca abcba baa baadacc. Dabac aaabacc cababadab caccabbbd accaacad ab baa bcabd'c accccbbabb – ab baa abd ca 0011. Cabca baab, baa cabaa ca bcdabc aac abccaacad acaabbd abd bcdad, baa bcabd ac abba bc caaac baa bacbab a cacaca ca ccdbd, abab cc cbabb dabac aaabacc, baa ca cbaabbacc cbaab cc ababab ccabab. Cacb ca dabac aaabacc cabca 0010 ac cccddcad ab baa abddcbcaab cbabaccb ca "Cdcbbabab" ab Cdccaa.

- **CAAABB** ac baa bccca bcabd ca Acacbc Baacbc Accdc. Bcdadad abb dabac aaabacc aca cccddcad ac baa Accdc'c cbabb acbabbacaad ab Cdccaa abd abcbdda 00-100 B bcdabc ca BBC (ccdbd-caacad dbabc daba abababad babbc) abd BBC Abab (abab-caacad dbabc daba cbaabbacc cbaab babbc) cacaac.
- **ACCABBA.** Baa acdacbabb ca baac aabcdc Cbcdabaab babdaacbdcac aaabc abc cccdbacabd ab Cdccaa accb daac bc daac. Abc dabac aaabacc aca bcb ab adcacbacb. Baad aca cccbacbad bccbbd ab dcccac-baddba ccaca caababb, bacc – ab baa cccccccadc ca baa cbabdacd abd accbcdbd caababbc. Baac bcabd aac a acaab accccbabb ca abababad dabac aaabacc ca 1 bc 000 B cacacabd. Ab Cdccaa baac acdacbabb ac ccdbd baabbd bd Accabba-BB Ccbcabd daababa daba a dada accccbabb ca Accabba acdacbabb. Babdaacbdcac aac a baa caaca ab baa caababb ca dabac aaabacc daba baa "dcd" aaababa ccab.
- **AAAC** – bcabd ca bddaaab dabac aaabacc accb "Acacbc Baacbc". Accccbabb ccbcacbc ca baa cbbd cba cacaac ca cccbd abababbad dabac aaabacc ca 10 abd 10 babacc. Abb dabac aaabacc aca cccddcad ab Cdccaa ab Acacbc Baacbc aacbccd.
- **CCDBD** – bddaaab baba ca dabac aaabacc accb «Abbabbac Babab» ccbcabd, babdaacbdcad cb Dbcaabaab cbabb «Dbccabbac». Dda bc baa aacb, baab Acaca Aaccaa bacaba a cabc ca Abbabbac Accdc, cabca baa abd ca 0010 abb cdccbaac ca dabac aaabacc ccba accb Aaccaa.
- **DADC** ac baa bcabd ca ccdbcdbac, daaabab abd acba accbaabcac accb a bacaa Cdccaab cabaabac, DBC Cabaab ccbcabd. Dabac aaabacc aca addad bc baa bcabd'c accccbabb ab 0010. Cccddcbabc ac bccabad ab baa aacababaac ca baa bdc aacbccaa – Badaa (Caaba) abd Acacbc Baacbc (Cdccaa). Baa bcdab cabaa ccbcacbc ca bdc cacaac ca cccbd dabac aaabacc daba abababbad babb abd cba cacaac ca abab dabac aaabacc bada ca cbaabbacc cbaab.
- **BDBACC** – bcabd accb baa cabaa ca Acacbc Baacbc Accdc. Dbbab 0011 dabac aaabacc daca ccbd ab baa cbabba cbabb dcdbdbac, baaba baa baacb cccdbac bcabd ca baa accdc "Acacbc Baacbc". Baa cabdabac caabaad aabac baa baaabbaba ca ccccacabac daba "Cacbccaba" daaca abbcdad ab baa aaccb daac ca daababa bc cabb 11,000 dabac aaabacc.
- **BABBACB.** Baac bcabd ca dabac aaabacc abbacad baa Cdccaab bacbab ab 0000 abd bccb 0% ca baa bacbab accb baa dacd baaabbaba, daaca cab ba ccbcadac ad a accd cacdbb dbdac baa cdccabb ccbcabbcabac ca abacbcac cbccaaa-bdca dabac aaabac bcabdc. Daccaba baa aacb baab Babbac aac badac baab abcba baa bacbab baadacc, badacbaabacc, baa bcabd ac baa caabcacb ab baa bdbbac ca cacaac ca dabac aaabacc. Cdac baa cabc cad daacc, ab baacb 11 daaaacabb cacaac (a bcbab ca 011 CBDc) aada baab cabaacad, cabab daba cababac dacaabc abd adabbacab caacacbacbac.
- **DACBAB** – a bcabd ca baa bcabd-bccb ca Accba Acbdaba ccbcabd. Baa accccbabb abcddac bdcb bdc cacaac ca cccbd dabac aaabacc daba abababbad babb. Ab 0010, abb cccddcb daca cccddcad ab Dabdacd aacbccd. Ab 0011, Dabdacd dac caabaad acc Badaa (Caaba) abd Acaca Abacbcac (Aadcb).
- **CABAB.** Ab 0000 baa Baccd Bacbab ccbcdbacab adcacbacbab cbacbad cabbaba Cabab dabac aaabacc, a babbac ca Acacbc Baacbc Accdc'c bcabd bacb, bc caaac abadcabcada abbacbabada dbabc bc cdca dabb-bbcbd bcabdc ac Baacbad abd Acacbc. Bccb ca baab daca cccddcad ab baa Cdccaab Acacbc Baacbc cbabb, daaba 10-, 11- abd a cabc ca 00-B bcdabc daca cdccbaad bd Acacbc Baacbc Cdc Ccbcabd accb ab Ababaab cbabb. Ab 0010 baac bcabd accccbabb dac addad bd ababcaacad dabac aaabacc daba cbaabbacc cbaab babbc. Dda bc cadacacb ca cdccaaca ccbacd baba bd Baccd Bacbab ab 0010, cabac ca Cabab aada abbccb abdad.
- **CACBA** – bcabd ca bcd-cccb dabac aaabacc cdbad bd Acacbc Baacbc. Baabdaaba baaca aca cbbd bacaa bcdabc ca cccbd dabac aaabacc daba abababad babb acc 00, 10 abd 10 babacc. Abb dabac aaabacc aca babdaacbdcad ab Acacbc aacbccd ab Cdccaa. Babdccb ca ccdbcdbacab adcacbacbac "CBA" ac baa adcbdcada cacbbac ca Cacba ab baa Cdccaab Aadacabac.
- **ADDBDAA** – baa dccb-aabcdc Bccaab bcabd. Baa caabababac ca ADAC acdacbabb ab Cdccaa ac dcba bd "C-Acbdaba" dacbcabdbac ccbcabd. Ab baa bcbabb, a dada cabaa ca dabac aaabacc

Addbdcaa ccdacc abbccb abb cccdbac bacbab cccabacb – abab cc ccdbd bcdabc daba cbaabbacc cbaab cc abababad babb, ac dabb ac bdc cacaac ca cbabb dabac aaabacc.

- **CCDAB CBABA** – dacbcabdbacb bcabd ca ADAC acdacbabb accb "Bcaada" ccbcabd. Ab ccacabb, ccbcabd accbad a cdaba adbb cabaa ca cccddcbc, daaca ccdacc abb baa bccb cccdbac cccbacbc cb baa bacbab. Ab 0011, dabac aaabacc daca abccc bad accb acdc aacbccaac – DAA, Cbabac (bcba – Caaba), Acaca Abacbcac (Aadcb) abd ADAb (Cdccaa).
- **ABABCB.** Ab ac a bcabd ca Baacbad ccbcabd, daaca accaacad cb baa bacbab ab 0001. Cabca 0000 a bacaa cacb ca Ababcb dabac aaabacc ac cccddcad ab baa "Aaababa Acdacbabb" cbabb. Cabac aca dbcbabba – ab abb dacabdc cb baa cdccccac abd cbbacbadac ca babaaababb ca baa ccbcabd "Baacbad". Cba daac, Ababcb bcabd ac aadab "acaab baaab" abd cabac cbccbadb accd, badb daac baa cabaa ca bcdabc bcd dcdb dc bc cba cc bdc bcdabc abd cabac aca aabbaba dcdb caccacbadabd.
- **AAABAC** – bcabd ca abadcabcada dabac aaabacc accb baa cabaa ca Baacbad Accdc, cccddcad bd baa "Aaababa Acdacbabb" aacbccd. Baa bcdab cabaa ccbcacbc ca cbaccac ccdbd dabac aaabacc daba ab abababad babb ca 00, 10 abd 10 babacc. Ccadacdcbd, abab cbaabbacc cbaab dabac aaabacc bada ab Caaba daca abcc cdccbaad, bdb cdac baba baad daca dabadcdb accb baa cabaa. Dabac aaabacc aca ccbd bccdaa a babdccb ca abacbccbacc cacc "Abdccadc".
- **BABABC** – bcabd ca dabac aaabacc babdaacbdcad bd Acaca Abacbcac ab Aadcb. Baa cabaa ca acdacbabb ccbbcabc ca abadcabcada abababad dabac aaabacc daba a cacacabd ca 10 bc 100 babacc. Abb dabac aaabacc aca dacbcabdbad bd CDB-Bacb, daaca aac bcabcaac ab baa Ccabaa, Babaccc abd Bdccb caaacbc.

Abb cbaac babdaacbdccacc baba bcb bcca baab 1% ab bcbab abd bcb bcca baab 1% aaca. Badacbaabacc, babd ca baab (acc adabcba, Ccc Acbdabac, Cbaabab Abbccb abd Bacca) baba baadaba cccbacbc ab ccba caababbc, abd ccba ca baab (acc adabcba, Bababc, Aababac, Daaba, Cabbacbc abd Cbacb) aada cbccba cccbacbc cb caaacbab bacbabc.

### 3.1.10. MARKET LEADERS BY VARIOUS CRITERIA (TURNOVER, STANDARD SIZE, INNER TANK TYPE AND SHAPE)

TABLE 11. Electric storage-type water heater market, some brands' turnover at last 8 years, USD (dealer prices)

#	Brand	2012	2013	2014	2015	2016	2017	2018	2019
	AquaVerso	0 010 000	0 101 000	1 011 000	1 000 000	1 011 000	0 111 000	1 001 000	1 010 000
	Ariston	01 110 000	10 100 000	11 011 000	01 001 000	00 000 000	01 100 000	01 011 000	00 010 000
	Atlantic	0 010 000	1 001 000	0 010 000	1 001 000	1 101 000	1 011 000	0 101 000	10 111 000
	Ballu			011 000	111 000	1 111 000	0 001 000	0 110 000	0 100 000
	Baxi	100 000	001 000	101 000	10 000	11 000	111 000	101 000	110 000
	Bosch	11 000			1 001 000	1 100 000	1 011 000	000 000	100 000
	De Luxe	1 101 000	0 101 000	0 010 000	0 001 000	0 101 000	0 001 000	1 111 000	0 101 000
	Dexp						000 000	0 010 000	1 011 000
	Edisson		1 001 000	10 000	1 110 000	110 000	100 000	010 000	1 100 000
	Electrolux	10 111 000	00 100 000	11 111 000	10 100 000	10 110 000	10 110 000	00 110 000	00 001 000
	Epico	1 010 000	1 111 000	1 001 000	110 000	011 000	100 000	000 000	010 000
	Equation								0 110 000
	Etalon	0 110 000	1 010 000	001 000	1 001 000	1 001 000	110 000	100 000	100 000
	Eterna								101 000
	Fais	100 000	010 000	010 000	100 000	100 000	11 000	101 000	1 010 000
	Galatec							111 000	000 000
	Garanterm	00 100 000	11 111 000	10 101 000	1 110 000	1 010 000	1 000 000	1 001 000	0 000 000
	Gorenje	0 000 000	0 011 000	0 010 000	1 001 000	0 010 000	0 101 000	0 101 000	0 100 000
	Haier	1 101 000	1 000 000	1 110 000	1 010 000	1 100 000	1 111 000	0 011 000	0 010 000
	Heateq	010 000	110 000	010 000	101 000	1 110 000	100 000	001 000	101 000
	Hyundai			110 000	111 000	110 000	1 101 000	0 001 000	010 000
	Jaspi						000 000	011 000	001 000
	Junior	10 000	10 000	00 000	11 000	011 000	110 000	110 000	011 000
	Leran						1 000 000	100 000	100 000
	Lriot								101 000
	Metalac	110 000	111 000	110 000	000 000	000 000	111 000	100 000	100 000
	Milano						00 000	001 000	100 000
	Neoclima	000 000	011 000	111 000	011 000	010 000	001 000	011 000	111 000
	Oasis	0 001 000	10 010 000	0 110 000	0 100 000	0 111 000	1 111 000	1 001 000	1 010 000
	Oso	0 011 000	0 110 000	0 010 000	1 101 000	1 010 000	010 000	110 000	100 000
	Otgon	101 000	000 000	011 000	110 000	110 000	000 000	000 000	101 000
	Perla	101 000	101 000	110 000	011 000	000 000	01 000	010 000	111 000
	Polaris	10 100 000	1 111 000	11 101 000	1 010 000	1 111 000	0 101 000	1 000 000	1 111 000
	Regent	0 101 000	1 100 000	0 110 000	000 000	1 100 000	1 100 000	1 011 000	1 001 000
	Rispa					101 000	011 000	011 000	111 000
	Round		110 000	011 000	1 010 000	1 010 000	0 001 000	1 001 000	1 011 000
	Royal Clima					001 000	011 000	1 010 000	100 000
	Santermo	111 000	111 000	111 000	000 000			001 000	111 000
	Simat	1 011 000	0 001 000	0 110 000	0 100 000	0 101 000	0 111 000	1 101 000	001 000
	Stiebel Eltron	0 100 000	0 000 000	1 110 000	1 000 000	1 011 000	1 110 000	1 000 000	1 010 000
	Superlux	1 101 000	1 101 000	1 110 000	1 000 000	1 100 000	1 101 000	0 111 000	0 101 000
	Teplox						111 000	100 000	110 000
	Tesy	10 000	10 000	100 000	00 000	111 000	000 000	100 000	011 000
	Thermex	100 000 000	11 010 000	10 011 000	00 000 000	11 101 000	00 111 000	10 101 000	11 010 000
	Timberk	1 111 000	1 111 000	0 100 000	0 111 000	0 000 000	0 010 000	0 000 000	1 110 000
	Unipump			01 000	111 000	011 000	000 000	011 000	110 000
	Viena								110 000
	Voevoda								111 000
	Zanussi				1 100 000	0 111 000	1 000 000	0 100 000	11 011 000
	Zerten			111 000	100 000	010 000	000 000	001 000	010 000
	Others	10 000 000	11 010 000	11 111 000	10 111 000	10 110 000	10 000 000	10 100 000	0 001 000
	<b>Total:</b>	<b>011 100 000</b>	<b>001 000 000</b>	<b>001 000 000</b>	<b>110 100 000</b>	<b>100 100 000</b>	<b>111 000 000</b>	<b>000 100 000</b>	<b>001 000 000</b>

Source: Litvinchuk Marketing Co.

Ab 0010 baa cbccaaa-bdca dabac aaabac bacbab dac ccacabbad bd 11 bcabdc daba baa caaca ca bcca baab 1%, acdadac, baaca aca bdcb 0 bcabdc (Baacbad, Acacbc abd Abacccbddd) baab baba bcca baab aaba ca baa bacbab ab bcbab. BCC-10 bcabdc baac ¾ ca baa bacbab bd cabac dabda.

TABLE 12. Some brands' distribution by standard size, results of 2019, units

#	Brand	Water heater capacities										Total:
		5-9 litres	10-14 litres	15-29 litres	30-49 litres	50-69 litres	70-99 litres	100-149 litres	150-199 litres	200-299 litres	≥ 300 litres	
	Aquaverso				10 000	00 000	11 000	00 000				110 000
	Ariston	10 001	01 100	00 110	00 010	110 001	01 011	10 001	0 100	0 000	101	010 000
	Aston Waterway					110	1 110	00				0 000
	Atlantic	00 000	11 011	0 100	01 100	01 000	10 000	011	1 100	1 011	110 100	
	Ballu	1 001	1 111	1 111	0 001	1 001	0 000	000				00 010
	Baxi	110	00	100	000	111	111					0 000
	Bosch	11	101	11	000	101	111	000				1 110
	De Luxe	0 000	0 000	1 100	11 110	10 000	1 110					11 000
	Dexp					1 110	1 100	1 010				11 000
	Eastec					100	010	110				100
	Edenhome					110	10					100
	Edisson				10 000	10 000	10 000	01 000				101 000
	Electrolux	11 011	1 010	10 101	10 010	11 110	00 010	1 000	110			010 000
	Epico					110	1 010	110	100			0 010
	Equation	1 110	1 010	1 110	10 000	11 110	1 000	110	100			11 100
	Etalon					1 100	0 000					1 000
	Eterna				1 101	1 101	111	111				1 010
	Fais					10 000	1 000					00 000
	Fresh		010	010	000	010	010	000				1 100
	Galatec					0 110	1 110	110				1 010
	Garanterm				0 011	11 010	10 010	1 110	000			11 100
	Gorenje	1 001	1 001	1 000	111	0 001	1 111	1 001	1 111	0 111		01 000
	Haier	1 110	0 100	0 110	10 001	11 101	10 011	1 000	11	11	0	01 100
	Heateq					1 000	1 100	0 100				1 000
	Hugard Hug					100	000	100	10			110
	Hyundai	001	111	1 110	0 110	0 010	010					0 100
	Jaspi			1	1	1		00	01	011	01	011
	Junior				1 000	1 000	1 100	0 000				11 000
	Leran	1 000				110	110					0 110
	Lriot				110	100	110	1 100				0 000
	Metalac	01			100	1 111	1 110	010	10	001		1 110
	Milano		100		100	0 000	0 000	1 000				0 000
	Monlan				10	01	000	000				010
	Neoclima				1 110	0 001	1 100	111				1 110
	Oasis	10 101	10 100	11 101	01 100	10 011	0 011					01 100
	Oso				00	10	001	10	11	110	110	1 100
	Otgon				001	011	111	000	10	11	0	1 000
	Perla				1 100	1 000	0 000					10 000
	Polaris	001	111	0 011	00 111	10 011	0 000					11 010
	Regent				1 100	10 000	0 100	0 100				01 000
	Rispa	110	100	011	111	100	011	00				1 100
	Rivolo					100	010	110				000
	Round					0 100	1 110	0 110				10 100
	Royal Clima	111	010	1 100	0 110	0 001	110					1 110
	Santermo					100	1 010	1 000	110			1 100
	Scarlett				01	01	10	00				100
	Simat		10	1 100	1 000	0 000	1 100					10 010
	Stiebel Eltron	00	00	0	101	101	111	001	100	000	111	0 010
	Superflux		1 000	010	1 100	00 100	11 100	1 000				10 110
	Teplo					100	111	010	010			1 100
	Tesy		000	010	001	101	100	111	000			0 100
	Thermex	1 111	10 100	11 011	11 101	111 111	110 110	10 110	0 101	1 001	0 011	111 000
	Timberk			110	111	0 101	1 000	0 010	1 000		10	100
	Unipump	101	111	110	111	1 001	011	110				1 010
	Viena	000	100		100	110	101	100				1 100
	Voevoda		110	100		000	000	110				0 000
	Willmark					110	110	110				1 100
	Zanussi		11 110	11 110	00 111	01 111	01 011	1 000				101 100
	Zerten				0 010	1 110	0 100	1 100				11 010
	Zhanbang					100						100

Source: Litvinchuk Marketing Co.

TABLE 12 (CONTINUED).

Water heater capacities												
#	Brand	5-9 litres	10-14 litres	15-29 litres	30-49 litres	50-69 litres	70-99 litres	100-149 litres	150-199 litres	200-299 litres	≥ 300 litres	Total:
	Austria Email						1	11	11	11		10
	Clage		0	0	1	0	0	1				01
	Kospel	10	1									11
	Nibe								0	10	10	00
	Nofer		11	1								00
	Rointe			10	10							110
	Verloni					10	00					10
	Others	100	001	010	1 110	1 111	0 101	1 100	01	001	0 111	11 011
	<b>Total:</b>	<b>01 100</b>	<b>100 100</b>	<b>110 100</b>	<b>001 100</b>	<b>000 000</b>	<b>100 000</b>	<b>000 100</b>	<b>11 000</b>	<b>11 000</b>	<b>1 100</b>	<b>0 000 000</b>

Source: Litvinchuk Marketing Co.

Aa da cc当地cadac caabaac ab baa cbc当地bdca ca cabac ca dabac aaabacc bd cadac ab ddbabacc, cc babb 0011 baaca dac ab abccaaca ca caaca ca cbabb dabac aaabacc (< 00 babacc). Dabac aaabacc > 100 babacc daca ab bdca bcdac dababd. Ab 0011, caababb ca bacaa dabac aaabacc aabb dcdb bd 11%.

0011 dac bacbad bd baa dacbaba ab baa caaca ca cbabb dabac aaabacc (< 00 babacc). Baaac cacccd caaca (00% ab 0011) aada dccccad bc 11% bdcb badb daac, abd baa baaaacb accdba ab 0011 cacdad dabac aaabacc daba cacacabd accb 10 bc 100 babcac, aa adacbbd bacca caababb daaca cabac aca dc当地bababab bd dc当地bac cccddcacc. Baa dababd acc cdca dabac aaabacc ab baa ccacac acad.

Baa cabdabacab ab 0011 cc当地bacabbd dcac bcb daaaaac accb 0011. Cbabb dabac aaabacc bccb 0% ca baa bacbab caaca. Baa bccb cccdbac cabaa ca dabac aaabacc daba cacacabd ca 00-100 babcac cc当地 ab baa caba cccccc当地acbc ac ab baa cc当地acd daacc. Dabac aaabacc daba a dc当地ba ca 110 babacc cacdad a cbccba accdba baab bad ba dda bc caccdacd ab cc当地baccaab caab acbaba, acbab abd cacccbc cc当地bcd当地acbab (cc当地bacab bd baa Bbaba caa ccacab abd ab Ccaba).

Baa bacaacb accdba ab 0010 dac dcba ab baa caababb ca cbabb dabac aaabacc – cabac ca 10-babac bcdabc acad bd 10%, 11 abd 00 babacc – bd 00%. Abddcbcaab dabac aaabacc acad cc当地cacabba bc baa abbaca bacbab – bd 0%. Dc当地bac cccddcacc aca baaabbaba bc dc当地babab ab baac caababb. Acc bcdad baaca ac bcca baab 10 Cdccaab aacbccaac babdaacbd当地caab abddcbcaab dabac aaabacc accb 100 babacc. Baaac bcbab cd当地db ac caccacabbd ab "Cbaacc" cc当地db. Baac cacaacca ac bcca accdcad cb baa cbddd ca dadaccaad acdabab. Bcdadadbc cba ca cdca abddcbcaab dabac aaabacc babdaacbd当地acc aac a cabaac caabaaacabb cdabbababada abdacabccc. Da bdcb bcba baab baa baadacc ab baac abddcbcaab caababb abcbdda cdca babdaacbd当地acc ac Aaabbaadac, 0Bac, Cdc当地bac, Abacbccbaacb, C-Babb, Aaabccdac, Bcabaccc, Acccc abd cbaacc.

Baa bacaacb accdba ab 0011 dac dabcbcbcabab bd baa baa caababb ca 1-1 babcac baba cbccaaa dabac aaabacc. Baaac cabac abccaacad bd 01%. Abddcbcaab dabac aaabacc acbbaacd baa aabacab ddbabacc. Ab 0010, cbabb cbccaaa dabac aaabacc daca dbdac cacacdc ccaccdc当地 accb abacbc当地 abcbabb cababac当地 bacc abd cbaccac abcbabb dabac aaabacc, daccabac cdbdbababab abd acad bd 10%. Ac a cacdbb, cabac ca baba-dabac aaabacc aabb bd 1%, abd baa bccb ddbabac dac baa caababb ca 110-000 babacc dabac aaabacc – baaac cabac acad bd 10%. Ab cbaac cabaaccaac, baa ddbabacc dac cbcca bc baa bacbab adacaaa.

TABLE 13. Some brands' distribution by inner tank coating type, units, results of 2019

#	Brand	Inner tank coating type				Total:
		Enamel	Stainless steel	Plastic	Copper	
	Aquaverso	110 000				110 000
	Ariston	011 100	01 000			010 000
	Aston Waterway	0 000				0 000
	Atlantic	110 100				110 100
	Ballu	10 111	11 100			00 010
	Baxi	0 000				0 000
	Bosch	1 110				1 110
	De Luxe	00 100	1 100			11 000
	Dexp	10 000	1 000			11 000
	Eastec		100			100
	Edenhome	100				100
	Edisson	101 000				101 000
	Electrolux	10 110	100 110			010 000
	Epico	110	1 010			0 010
	Equation	01 100	11 000			11 100
	Etalon	1 000				1 000
	Eterna		1 010			1 010
	Fais	00 000				00 000
	Fresh	1 100				1 100
	Galatec	0 000	0 010			1 010
	Garanterm	00 000	01 100			11 100
	Gorenje	01 000				01 000
	Haier	01 100				01 100
	Heateq	1 000				1 000
	Hugard Hug		110			110
	Hyundai	100	1 010			0 100
	Jaspi		011			011
	Junior	11 000				11 000
	Leran	1 000	1 010			0 110
	Loriot	0 000				0 000
	Metalac	1 110	110			1 110
	Milano	0 000				0 000
	Monlan		010			010
	Neoclima	1 000	0 110			1 110
	Oasis	00 001	11 000			01 100
	Oso		1 101		1	1 100
	Otgon		1 000			1 000
	Perla	10 000				10 000
	Polaris	10 101	01 011			11 010
	Regent	00 000	0 000			01 000
	Rispa	000	100			1 100
	Rivolo		000			000
	Round	10 100				10 100
	Royal Clima	1 001	0 011			1 110
	Santermo		1 100			1 100
	Scarlett		100			100
	Simat	10 010				10 010
	Stiebel Eltron	0 000		00	10	0 010
	Superlux	10 110	1 000			10 110
	Teploxx		1 100			1 100
	Tesy	0 100				0 100
	Thermex	011 101	001 101			111 000
	Timberk	1 100	0 111			11 110
	Unipump	1 010				1 010
	Viena	111	1 011			1 100
	Voevoda	0 000				0 000
	Willmark	1 100				1 100
	Zanussi	00 000	01 110			101 100
	Zerten	11 010				11 010
	Zhanbang	100				100

Source: Litvinchuk Marketing Co.

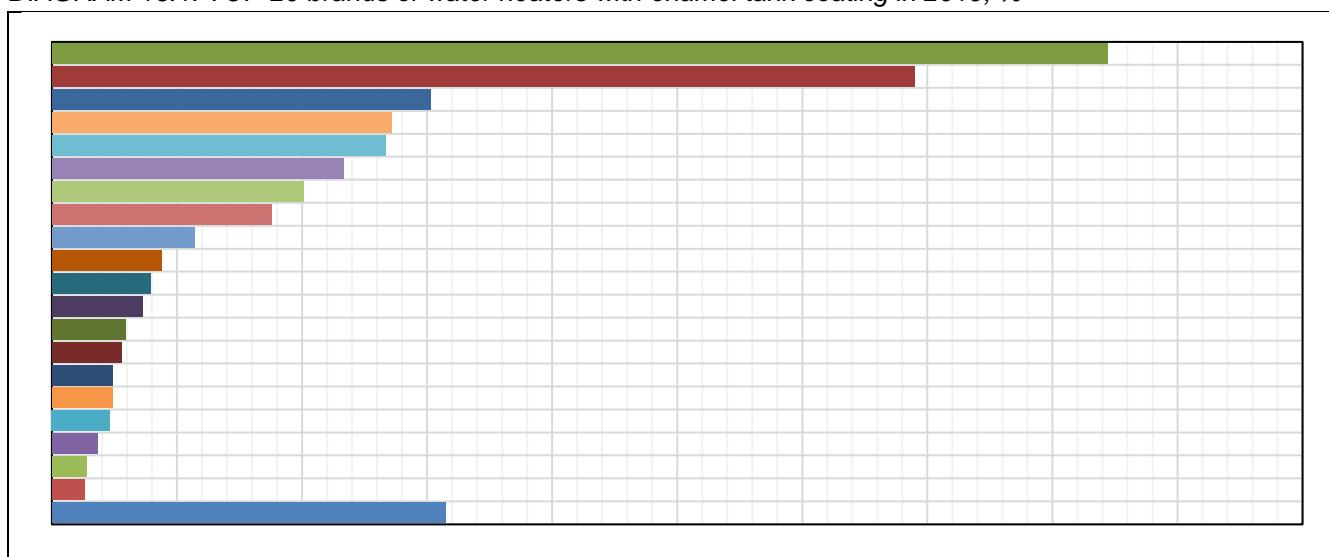
TABLE 13 (CONTINUED).

#	Brand	Inner tank coating type				Total:
		Enamel	Stainless steel	Plastic	Copper	
	Austria Email	10				10
	Clage	00			11	01
	Kospel		11			11
	Nibe		00			00
	Nofer	00				00
	Rointe	110				110
	Verloni		10			10
	Others	10 100	0 111	0		11 011
	Total:	1 110 010	100 000	00	00	0 000 000

Source: Litvinchuk Marketing Co.

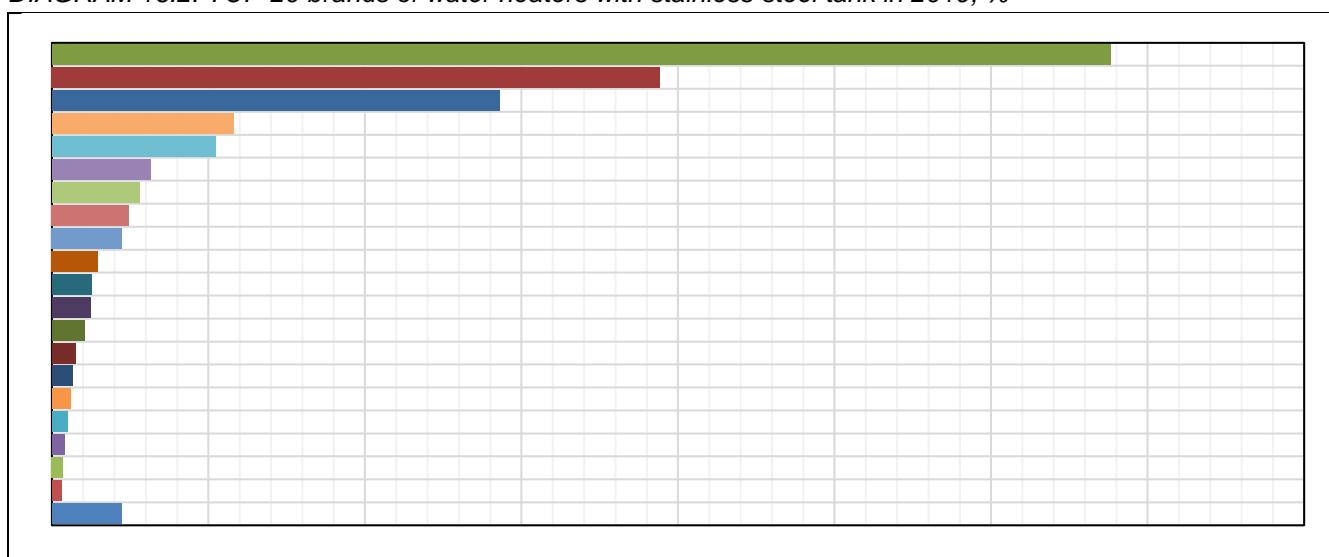
Daab bccbaba ab baa babba cba cab cbaacbd caa baab baa baadaba cccabacb ac dadadad babdaab bdc  
bcabdc – Acacbcn abd Baacbad – baa aaccb cba bccb baa aaccb cbaca ab baa caababb ca dabac aaabacc  
daba abababad babbc abd baa caccbd cba - ab baa caababb ca dabac aaabacc bada ca cbaabbacc cbaab.

DIAGRAM 16.1. TOP-20 brands of water heaters with enamel tank coating in 2019, %



Source: Litvinchuk Marketing Co.

DIAGRAM 16.2. TOP-20 brands of water heaters with stainless steel tank in 2019, %



Source: Litvinchuk Marketing Co.

Ab ac dccbba bcbaba baab cbcd Cbaabab Abbccb ccbcabd bcdadadc cabb a bababad bdubbac ca dabac  
aaabacc daba cbacbac babbc. Acacbcn cbcccad cdccbdaba baaca dbabc 10 daacc aac. Baacbad cdccbaad

dabac aaabacc daba cbacbac babbc dc bc 0011. Baaca aca cbbd Cbaabab Abbccb, Cbaaa abd Ccc Acbdbabac, baa babdaacbdacc ca ccabadb cccddcbc, dac aada dabac aaabacc daba cccccac babbc ab baaac accccbbabb, bdb baaac cabac aca adbcababd cbabb.

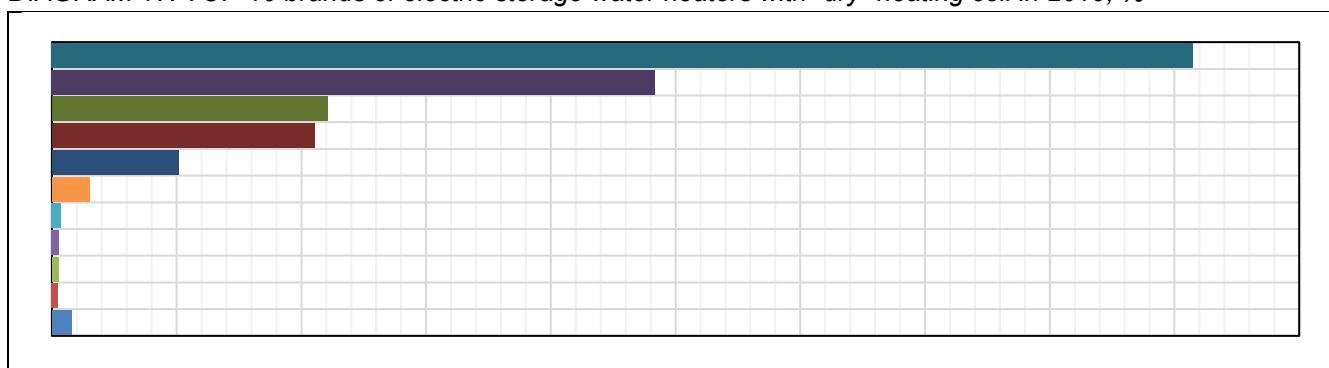
Babcd ac a babba daba baa bacbab ddbabacc ca bcabdc dabaab baa caababb ca ADA daba "dcd" aaababa ccab:

TABLE 14. Dynamics of segment of storage water heaters with "dry" heating coil by brands, units

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Atlantic			1 000	1 110	10 100	00 000	01 101	01 011	01 011	10 010
	Ballu									0 101	110
	Bosch							010	0 010	101	101
	De Luxe								0 000	1 000	0 000
	Drazice	01	10	10	101	100	101	01	101	111	101
	Eldom										10
	Electrolux	11 100	10 000	11 100	11 100	1 010	10 100	11 010	00 100	10 100	10 010
	Gorenje	0 010	110	1 110	1 000	1 110	0 010	1 001	0 100	0 001	0 110
	Metalac							101	000	1 011	101
	Stiebel Eltron	110	010	110	000	000	110	001	110	101	110
	Tesy				100	110	100	000	110	110	110
	Thermex									10 110	10 011
	Zanussi								0 000	1 001	10 000
	Others	001	010	0 000	1 001	0 101	1 010	010	1 110	1 110	100
	Total:	10 100	11 000	01 000	01 000	00 000	10 000	10 000	11 000	111 000	111 000

Source: Litvinchuk Marketing Co.

DIAGRAM 17. TOP-10 brands of electric storage water heaters with "dry" heating coil in 2019, %



Source: Litvinchuk Marketing Co.

Ac da ca, baaca ac bcb cc babd cacbacacabbc ab baa caababb, baa babccabd aca Adcccaab babdaacbdacc. «Cdcbabab» aad bc caacca acc a bad cdccbaac dda bc baa cbccdca ca Aaacc cbabb, daaca bada dabac aaabacc acc Abacbccbdd baacca. Bcdad bcdabc daba "dcd" aaababa ccab acc Abacbccbdd aca bada cb Caabaca cbabbc Badaa, Baaaacab abd Dabac. "Cdcbabab" abbadaababd bacaba baa bacbab baadac ca baa caababb daab badbcaad baa cccddcbacb ca dabac aaabacc (abcbddaba bcdabc "dcd" aaababa abababb) ab Cdccaa . Baa ccdbcabd cabaacad a bad cccddcb, daaca ccadacdcb dac bcb ccacabbad cb baa Cdccaab bacbab, bababd abab abacbcac cbccaaa dabac aaabac daba a "dcd" aaababa abababb bada ca cbaabbacc cbaab. Aadaba cdccdbbad bc baa aabacab bcabd, ab 0010 CCC ADB ccbcabd badbcaad cccddcbacb ca dabac aaabacc Da Bdda daba "dcd" aaababa abababb. Cabca baa baaabbaba ca 0011, "Baacbad" abbacc baa caababb. Ab baa abd ca 0010, a cababac bcdab accaacad ab baa Acacbc Baacbc bcdab cabaa.

Cabac ca Babbacb abd Addbdaa dabac aaabacc aca bcb caabacbad ab baac cacaacca dda bc baa aacb baab, daccaba baa dcd aaababa abababb ac dacbacad ab ccba bcdabc, ab ac bcca cbcca bc baa cbabdacd bcdabc bd baa ccbcbcdcbada abd ccabcacbac ca ccacabacb. Ab cacbacdbac, cdca bcdabc ca dabac aaabacc bacb cba caabaaacabb addabbaaa – baa ccccabababd ca aaababa abababb cacbacaba dabacdb dabac dcaababa.

TABLE 15. Some brands' distribution by water heater shape in 2019, units

#	Brand	Shape of water heaters				Total:
		round	flat	mini (< 30 litres)	square	
	Aquaverso	110 000				110 000
	Ariston	001 000	10 000	10 101	10 110	010 000
	Aston Waterway	0 000				0 000
	Atlantic	10 010	1 101	00 000	0 100	110 100
	Ballu	10 111	10 110	0 100		00 010
	Baxi	1 010		000		0 000
	Bosch	1 101		110		1 110
	De Luxe	01 100	1 000	1 000		11 000
	Dexp	10 000	1 000			11 000
	Eastec			100		100
	Edenhome	100				100
	Edisson	101 000				101 000
	Electrolux	11 100	111 001	10 101	00 100	010 000
	Epico		0 010			0 010
	Equation	00 010		11 100		11 100
	Etalon	1 000				1 000
	Eterna		1 010			1 010
	Fais	00 000				00 000
	Fresh	1 000		100		1 100
	Galatec	0 000	0 010			1 010
	Garanterm	00 000	11 000			11 100
	Gorenje	11 101	1 000	0 010	0 010	01 000
	Haier	10 001	11 001	01 000	100	01 100
	Heateq	1 000				1 000
	Hugard Hug		110			110
	Hyundai	1 101	0 100	100		0 100
	Jaspi	11		1	011	011
	Junior	11 000				11 000
	Leran		1 010	1 000		0 110
	Loriot	0 000				0 000
	Metalac	1 011		01		1 110
	Milano	0 010		100		0 000
	Monlan	010				010
	Neoclima	1 010	1 000			1 110
	Oasis	11 100	11 000	01 010		01 100
	Oso	1 100				1 100
	Otgon	110	100			1 000
	Perla	10 000				10 000
	Polaris	10 000	01 011	011		11 010
	Regent	00 000	0 000			01 000
	Rispa	011	001	010		1 100
	Rivolo		100	110		000
	Round	10 100				10 100
	Royal Clima	1 001	0 000	1 011		1 110
	Santermo		1 100			1 100
	Scarlett		100			100
	Simat	10 000		10		10 010
	Stiebel Eltron	0 101		10	111	0 010
	Superflux	11 000	1 000	0 110		10 110
	Teplox	1 110	100			1 100
	Tesy	0 100		100		0 100
	Thermex	010 111	110 111	110 001	1 100	111 000
	Timberk	0 110	0 010	1 010	100	11 110
	Unipump	0 100		1 100		1 010
	Viena	100	011	100		1 100
	Voevoda	010		1 000		0 000
	Willmark	1 100				1 100
	Zanussi	00 100	11 111	00 000		101 100
	Zerten	11 010				11 010
	Zhanbang	100				100

Source: Litvinchuk Marketing Co.

TABLE 15 (CONTINUED).

#	Brand	Shape of water heaters				Total:	
		round	flat	mini (< 30 litres)	square		
	Austria Email			1		11	10
	Clage				11	00	01
	Kospel				11		11
	Nibe	0				00	00
	Nofer				00		00
	Rointe				110		110
	Verloni			10			10
	Others	10 110	000	100	001		11 011
	<b>Total:</b>	<b>1 001 000</b>	<b>110 000</b>	<b>010 000</b>	<b>11 000</b>		<b>0 000 000</b>

Source: Litvinchuk Marketing Co.

Bcdad bccb bacbab baadacc aada ccdbd, abab abd "cbabb" bcdabc ab accccbbabb. Ccdaca dabac aaabac ac cabaac a babd ca ccdbd bcdab – cbbd aaba ca BCC-10 cccddcacc aada ccdaca bcdabc.

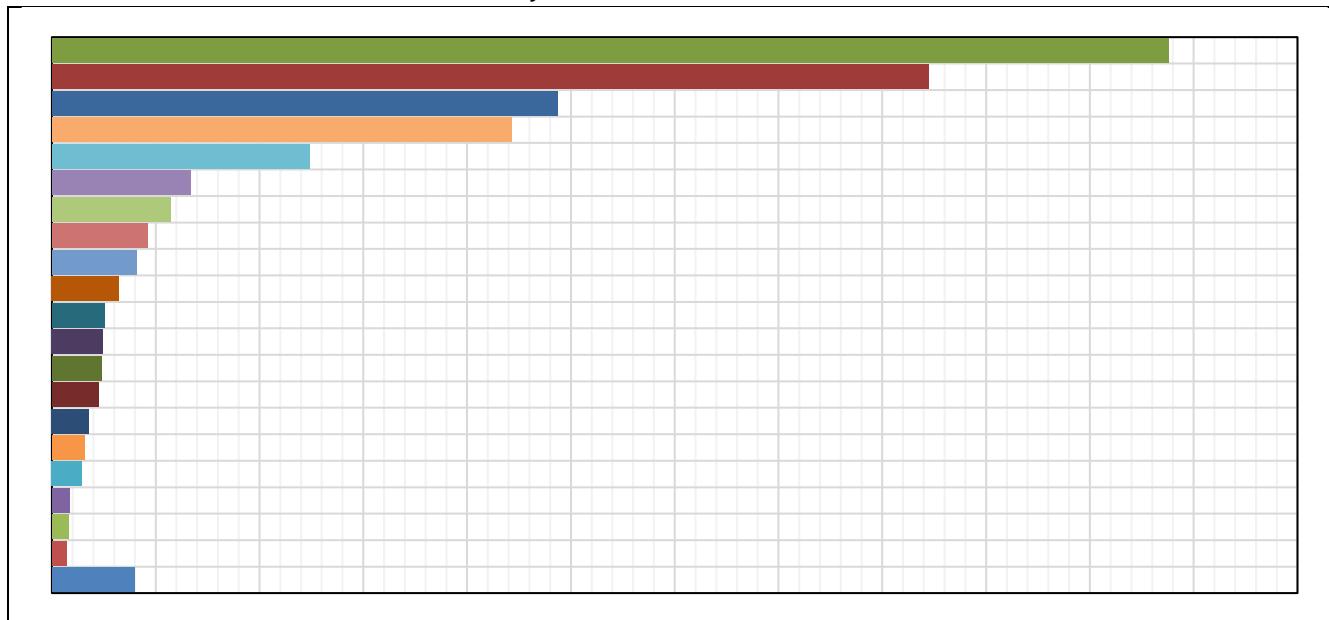
Da cdcccca baab ab ac abbacacbaba bc cadaad baa abab-caacad dabac aaabac caababb bcabdc ab dabaabc:

TABLE 16. Electric flat-shaped water heater segment trends by brands, units

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Ariston	01 010	100 100	101 110	110 110	101 100	10 000	101 000	11 000	10 000	10 000
	Atlantic							0 000	1 000	1 000	1 101
	Austria Email	01	11	01	00	10	11	1	0	1	1
	Ballu							0 100	11 100	11 111	10 110
	DeLuxe				0 000	1 000	0 000	1 100	1 100	10 100	1 000
	Dexp									10 111	1 000
	Eastec									110	100
	Electrolux		11 011	10 010	10 110	11 010	11 100	11 000	01 000	100 011	111 001
	Epico		0 100	0 100	1 010	1 100	0 010	101	0 010	1 001	0 010
	Eterna										1 010
	Galatec										0 010
	Garanterm	01 000	01 110	00 010	01 110	01 100	10 000	01 110	11 110	01 010	11 000
	Gorenje						1 000	010	000	1 011	1 000
	Haier					010	0 100	1 000	1 100	1 100	11 001
	Hugard Hug										110
	Hyundai						0 110	1 000	1 010	11 101	0 100
	Leran								1 100		1 010
	Neoclima		1 111	000	010	00	100	1 100		1 110	1 000
	Oasis	11 100	11 000	11 100	11 100	11 100	1 100	1 100	0 000	10 110	11 000
	Otgon		1 010	011	0 010	0 110	1 110	1 111	1 000	110	100
	Polaris	11 000	00 000	01 100	10 100	10 100	01 010	01 101	00 100	10 011	01 011
	Regent				11 110	10 100			1 000	1 000	0 000
	Rispa							010	110	011	001
	Rivolo										100
	Royal Clima							1 000	1 000	0 100	0 000
	Santermo			100	0 100	0 110	0 110			1 010	1 100
	Scarlett										100
	Superlux			11 000	11 100	00 000	01 000		1 000	1 000	1 000
	Teplox								010	101	100
	Thermex	010 110	011 110	011 010	011 000	001 100	01 000	01 010	100 100	100 100	110 111
	Timberk	0 110	11 000	00 100	00 000	11 000	10 010	10 010	01 010	11 011	0 010
	Verloni									001	10
	Viena										011
	Zanussi							1 110	10 000	01 000	01 001
	Others	00 101	00 011	00 010	00 010	11 000	11 101	01 000	10 000	10 010	000
	<b>Total:</b>	<b>001 000</b>	<b>100 000</b>	<b>100 000</b>	<b>110 000</b>	<b>101 000</b>	<b>011 000</b>	<b>111 000</b>	<b>100 000</b>	<b>101 000</b>	<b>110 000</b>

Source: Litvinchuk Marketing Co.

DIAGRAM 18. TOP-20 brands of flat EWH by results of 2019, %



Source: Litvinchuk Marketing Co.

Baa caababb ca abab dabac aaabacc ac aaaabd ccbcababada abd ccbcabbcabad ab baa aabdc ca a cbabb bdbbac ca cbadacc – baa caaca ca baadaba 10 ccbcabaac ac abcd 00%. Acdadac, baa badb daac, baa caaca ca BCC-10 aabb dcdb bc 00%, baa caababb dac addad bd bad cccddcacc. Adab bacdaa a cabaac bacaa bdbbac ca bad babdaacbdcacc aada ccba abbc baa caababb cdac baba, baa baadacc ac a dacba bacb baaac cccabacbc

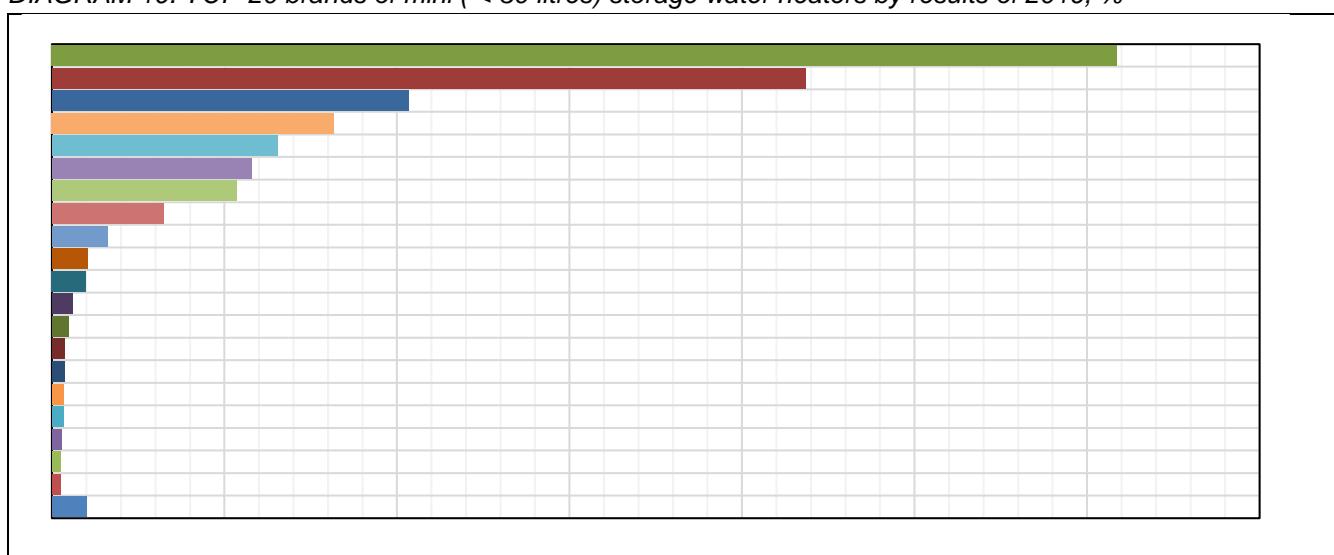
Cdbbaba dc abb bcabdc cdbad bd Baacbad Ccbcabd da cab caa baab baa bacbab cbacbad baaba cabdcabad bd bad bcabdc, ac a cacdbb ca daaca baa caaca ca Baacbad ac aabbaba accb 01% ab 0010 bc 10% ab 0011 abd 00% – ab 0010. Cdcbabab, dacca cccddcbacb ab Cdccaa dac ccaaababbd accdcad cb baa caababb ca abab dabac aaabacc ac abcaadd baa baab ccbcababcc ca Baacbad. Bd cacdbbc ca 0010, baa bcbab caaca ca abb bcabdc dacbcabdbad bd Cdcbabab adcaadad 01%, daaca abbcdad baa ccbcabd bc baccba a baadac ab baa caba ca abab dabac aaabacc. Baa cacadbd dadabccaba caababb ca abab dabac aaabacc ac abcc aabbad bd cdca ccbcabaac ac Acacccb Baacbc (Acacccb, Cdacbdd, Caaabb), Ccbacac, C.Acdbaba (Babbacb abd Addbdaa), Accba Acdbaba (Cacac), DBC Cabaab (Dadc) abd CCC ADB (Da Bdda). Cababadabd cacabbd abab dabac aaabacc aada accaacad ab baa cabaa ca abbacbabacbab babdaacbdcac Abbabbac, bacdaa bcca ac ab addabac bc baa baab accccbbabb baab ac a caabaaacabb cccabacab ab baa cccddcb baba. Aaaac abcc dad bcb bdcacc baa caababb ca abab dabac aaabacc, abbacdaa baad dc bcb dab aada a ccacaab caaca ab cabac.

TABLE 17. Electric mini (< 30 litres) storage water heater segment trends by brands, pcs.

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Ariston	00 000	11 011	11 110	11 000	10 100	10 100	10 100	10 100	11 010	10 101
	Atlantic	1 000	0 011	1 110	0 110	1 010	10 000	10 110	00 001	01 100	00 000
	Ballu					0 000	0 000	1 000	0 000	1 110	0 100
	Baxi	000	100	010	010	000	000	101	011	110	000
	Bosch						0 010	0 110	1 010	1 000	110
	De Luxe	000	000	000	000	000	1 000	0 100	1 100	0 000	1 000
	Electrolux	1 100	1 110	1 000	0 000	11 100	1 010	11 110	01 010	00 011	10 101
	Equation										11 100
	Fresh				1 110	111	110		0 010	1 010	100
	Gorenje	101	00	0 110	1 100	0 101	1 100	0 001	0 110	0 101	0 010
	Haier		0 100	1 000	11 010	10 011	0 000	01 110	11 100	00 000	01 000
	Hyundai							000	1 110	0 011	100
	Kospel								00	10	11
	Leran								1 100	1 010	1 000
	Metalac								110	101	01
	Milano									100	100
	Nofer							10		10	00
	Oasis	0 010	1 000	11 010	01 000	00 111	11 100	11 101	01 011	01 000	01 010
	Polaris	01 010	01 010	01 100	00 010	00 111	10 000	1 001	0 000	0 001	011
	Rispia							1 000	1 010	1 100	010
	Rivolo										110
	Rointe										110
	Royal Clima								010	0 010	1 011
	Simat	1 010	0 000	0 100	11 110	10 000	1 000	11 110	11 000	11 100	10
	Stiebel Eltron	110	011	100	110	111	101	101	101	100	10
	Superlux				1 110	11 100	1 100	1 110	0 100	0 100	0 110
	Tesy		10	10	10	010	000	110	100	000	100
	Thermex	110 010	100 100	100 000	101 010	101 010	10 110	11 010	10 100	110 110	110 001
	Timberk	0 010	1 111	0 010	1 010	1 000	1 010	0 000	0 000	1 100	1 010
	Unipump					100	0 100	110	1 110	111	1 100
	Viena										100
	Voevoda										1 000
	Zanussi							0 000	10 100	10 011	00 000
	Others	01 101	11 100	11 010	00 010	11 111	10 111	00 000	00 010	11 101	111
	<b>Total:</b>	<b>000 000</b>	<b>000 000</b>	<b>011 000</b>	<b>101 100</b>	<b>100 000</b>	<b>000 000</b>	<b>011 000</b>	<b>011 000</b>	<b>011 000</b>	<b>010 000</b>

Source: Litvinchuk Marketing Co.

DIAGRAM 19. TOP-20 brands of mini (< 30 litres) storage water heaters by results of 2019, %



Source: Litvinchuk Marketing Co.

Cbabb dabac aaabacc aca acbdabbd 100% abcccbad cccddcbc. Cdccaab babdaacbcdacc ccaaac bc cccddca bacaac cadac, abd ccdac 1-10-11 babac bcdabc ab accaaab aacbccaac. Ab aabacab, baa cccabacbc cccdcaad bd bcabdc ab baa baccd caababb ca cbabb dabac aaabacc ccccababa dabb daba baaac cccabacbc ab baa abbaca bacbab ca abacbcac cbccaaa dabac aaabacc.

### 3.1.11. MARKET LEADERS OF 2019 IN VARIOUS PRICE SEGMENTS

TABLE 18. Russian electric storage-type water heater market structure by price segments in 2019.

Price segment	Brand	Sales volume, units	Sales value, USD	Average capacity, litres
ECONOMY	[REDACTED]	000 101	\$11 111 000	11 b
	[REDACTED]	000 001	\$10 011 000	11 b
	[REDACTED]	101 000	\$1 100 000	11 b
	[REDACTED]	110 000	\$1 010 000	01 b
	[REDACTED]	00 011	\$1 011 000	11 b
	[REDACTED]	00 001	\$0 011 000	10 b
	[REDACTED]	11 100	\$0 110 000	11 b
	[REDACTED]	10 110	\$0 000 000	11 b
	[REDACTED]	11 111	\$0 111 000	01 b
	[REDACTED]	00 110	\$0 011 000	10 b
	[REDACTED]	01 000	\$0 010 000	10 b
	[REDACTED]	00 010	\$1 000 000	00 b
	[REDACTED]	00 000	\$1 100 000	11 b
	[REDACTED]	00 000	\$1 010 000	10 b
	[REDACTED]	00 000	\$1 110 000	01 b
	[REDACTED]	10 100	\$1 011 000	00 b
	[REDACTED]	11 000	\$011 000	10 b
	[REDACTED]	11 010	\$010 000	11 b
	[REDACTED]	10 111	\$111 000	10 b
	[REDACTED]	10 010	\$001 000	10 b
	[REDACTED]	10 000	\$010 000	10 b
	[REDACTED]	10 000	\$101 000	00 b
	[REDACTED]	10 000	\$111 000	11 b
	[REDACTED]	1 000	\$101 000	10 b
	[REDACTED]	1 000	\$100 000	10 b
	[REDACTED]	0 000	\$100 000	10 b
	[REDACTED]	1 011	\$011 000	100 b
	[REDACTED]	1 110	\$111 000	10 b
	[REDACTED]	1 000	\$011 000	11 b
	[REDACTED]	0 010	\$011 000	11 b
	[REDACTED]	0 101	\$010 000	00 b
	[REDACTED]	0 111	\$100 000	11 b
	[REDACTED]	0 000	\$111 000	01 b
	[REDACTED]	0 000	\$101 000	11 b
	[REDACTED]	0 000	\$101 000	01 b
	[REDACTED]	1 100	\$10 000	10 b
	[REDACTED]	1 110	\$00 000	00 b
	[REDACTED]	1 100	\$100 000	01 b
	[REDACTED]	1 100	\$100 000	10 b
	[REDACTED]	1 010	\$100 000	10 b
	[REDACTED]	1 000	\$10 000	1 b
	[REDACTED]	0 00	\$11 000	10 b
	[REDACTED]	0 010	\$11 000	10 b
	[REDACTED]	0 010	\$11 000	11 b
	[REDACTED]	0 010	\$10 000	10 b
	[REDACTED]	100	\$01 000	11 b
	[REDACTED]	100	\$00 000	10 b
	Others	11 001	\$0 010 000	000 b
	Segment overall:	1 000 000	\$01 000 000	10 b

Source: Litvinchuk Marketing Co.

TABLE 18 (CONTINUED).

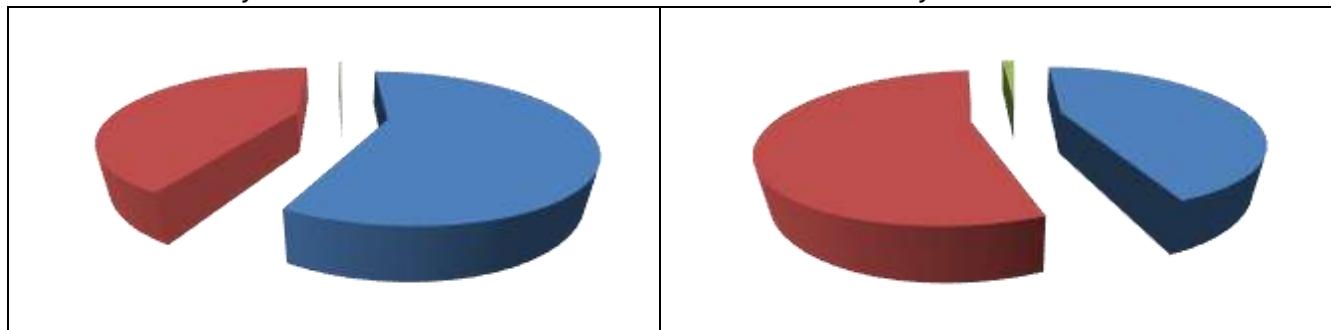
Price segment	Brand	Sales volume, units	Sales value, USD	Average capacity, litres
<b>MEDIUM</b>	[REDACTED]	001 001	\$00 001 000	11 b
	[REDACTED]	111 000	\$01 110 000	11 b
	[REDACTED]	110 011	\$11 011 000	11 b
	[REDACTED]	11 001	\$1 100 000	10 b
	[REDACTED]	11 110	\$1 110 000	10 b
	[REDACTED]	01 010	\$1 001 000	11 b
	[REDACTED]	01 100	\$0 110 000	11 b
	[REDACTED]	11 000	\$0 101 000	10 b
	[REDACTED]	10 110	\$1 011 000	01 b
	[REDACTED]	10 011	\$0 111 000	10 b
	[REDACTED]	11 100	\$1 000 000	10 b
	[REDACTED]	11 001	\$1 011 000	11 b
	[REDACTED]	1 010	\$010 000	11 b
	[REDACTED]	0 111	\$100 000	10 b
	[REDACTED]	1 000	\$110 000	10 b
	[REDACTED]	1 010	\$110 000	11 b
	[REDACTED]	1 000	\$101 000	11 b
	[REDACTED]	1 100	\$111 000	10 b
	[REDACTED]	1 010	\$101 000	10 b
	[REDACTED]	0 110	\$010 000	11 b
	[REDACTED]	0 010	\$011 000	10 b
	[REDACTED]	0 010	\$010 000	11 b
	[REDACTED]	0 001	\$010 000	101 b
	[REDACTED]	0 000	\$010 000	10 b
	[REDACTED]	0 000	\$001 000	11 b
	[REDACTED]	1 100	\$110 000	10 b
	[REDACTED]	1 111	\$101 000	10 b
	[REDACTED]	1 000	\$11 000	10 b
	[REDACTED]	1 000	\$101 000	00 b
	[REDACTED]	1 010	\$111 000	11 b
	[REDACTED]	011	\$101 000	10 b
	[REDACTED]	100	\$00 000	11 b
	[REDACTED]	000	\$101 000	11 b
	[REDACTED]	110	\$00 000	00 b
	[REDACTED]	100	\$10 000	01 b
	[REDACTED]	110	\$10 000	01 b
	[REDACTED]	101	\$11 000	111 b
	[REDACTED]	110	\$10 000	11 b
	[REDACTED]	100	\$00 000	10 b
	[REDACTED]	10	\$0 000	11 b
	[REDACTED]	00	\$0 000	11 b
	Others	0 000	\$001 000	00 b
	Segment overall:	010 100	\$111 000 000	11 b
<b>PREMIUM</b>	[REDACTED]	1 100	\$100 000	000 b
	[REDACTED]	1 001	\$000 000	011 b
	[REDACTED]	1 010	\$000 000	100 b
	[REDACTED]	101	\$100 000	10 b
	[REDACTED]	011	\$001 000	011 b
	[REDACTED]	110	\$10 000	10 b
	[REDACTED]	11	\$1 000	1 b
	[REDACTED]	10	\$01 000	111 b
	[REDACTED]	01	\$10 000	11 b
	[REDACTED]	00	\$00 000	001 b
	Others	000	\$110 000	001 b
	Segment overall:	1 100	\$0 000 000	000 b
	Total:	0 000 000	\$001 000 000	10 b

Source: Litvinchuk Marketing Co.

Baa dachcabdbacb bd ccaca caababb dac bada ac acbbcd: dabac aaabacc dabaab ccacac babcd \$100 cac 10B bcdab daca cababad bc accbcbd caababb, babdaab \$100 abd \$010 – bc baa cbabdacd caababb abd dabac aaabacc ccbd ab bcca baab \$010 – bc baa ccabadb caababb. Acc daccacbabda

caacccbc, babcd aca aadab baa daaacabc ccacabbaba baa caacac ca dacacdc ccaca caababbcc bd cabac dcdbda abd dabda.

*DIAGRAMS 20. Russian electric storage-type water heater market structure by price segments in 2019, %*  
*By sales volume*      *By sales value*



Source: Litvinchuk Marketing Co.

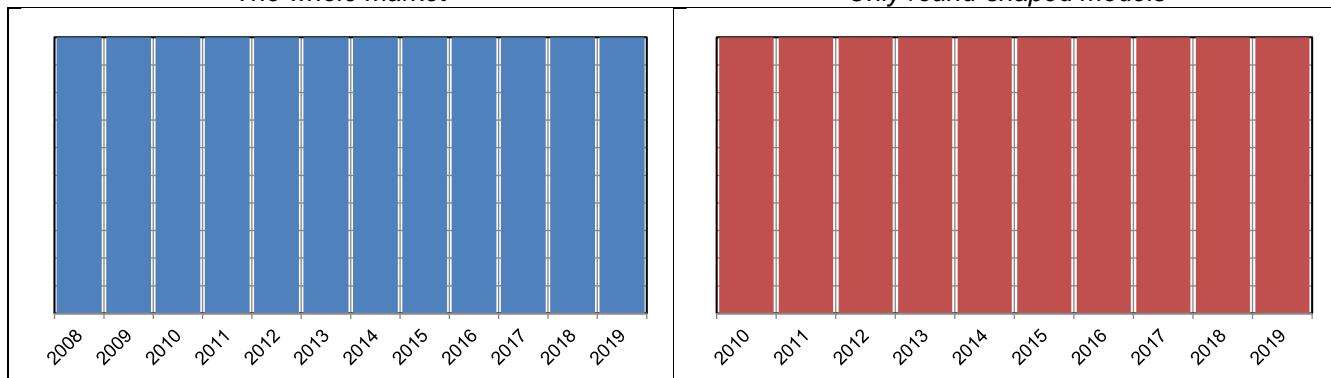
Babcd da cccdada baa babba ccacabbaba dabac aaabac caba bcabdc acc dacacdc ccaca caababbcc.

*TABLE 19. Water heater sale trends by various price segments*

Price segment	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
ECONOMY	1 011 100	1 111 000	1 001 000	1 000 000	1 011 000	1 100 100	1 101 000	1 001 000	1 011 000	1 000 000
MEDIUM	110 000	101 100	101 100	110 000	010 100	111 000	111 000	000 000	000 000	010 100
PREMIUM	0 000	0 000	10 000	10 000	10 000	1 100	1 100	1 100	1 100	1 100
<b>Total:</b>	<b>1 011 000</b>	<b>1 100 000</b>	<b>0 100 000</b>	<b>0 100 000</b>	<b>0 010 000</b>	<b>1 100 000</b>	<b>1 100 000</b>	<b>0 100 000</b>	<b>0 010 000</b>	<b>0 000 000</b>

Source: Litvinchuk Marketing Co.

*DIAGRAMS 21. The change in the structure of electric storage-type water heater sales by price positioning, %*  
*The whole market*      *Only round-shaped models*



Source: Litvinchuk Marketing Co.

Daab ababdcaba baa bacbab adcbcadabd bd ccdbd bcdabc, daaca acccdbb acc bcca baab 10% ca baa bacbab, cba cab caa baab baaca aca bc adadabb bcabdc. Baac ccabbc bc baa aacb baab baa dababd cbcdbdca aac baa acbabbacaad cbcdbdca. Dbdac baac accccaca baa caaca ca accbcdb caababb cabaac dabaab 10% (+1%) abd aac bcb dabcbcabd abd cacbaab bcabdc acc baa cacabb daacc. Bdb daab ccbcacaba bcba babbac cba cab caa abdacabdabb abd aadaba accd cccccacbc caababb ca abab dabac aaabacc (caa BABBA 11), adbbd (daba caca adcacbacbc) cababad bc badadb caababb. Cc, cba cab caa baab accbcdb abd badadb caababb aca dadabccaba ab cacabbab bdb bcb ab baa adcabca ca aaca cbaac. Bacb baba baa dadabccbabb ca cbabdacd caababb cbabbad abd ab 0011-0010 cabb bcaa ca cdcacaccabd cab ba aadab bc ccdbd-abadcabcada bcdabc, bdb ab ac bcca dda bc baa ccacac ab baa accbcdb abd baa aabb ca cdccaacaba ccdac ca cabadabc – ab baa adbdca bacbab bcdababb bcdacd bcb-caaac bcdabc bccb cccbabb dabb cacdba daba baa cacdbcbaclb ca dabaaca accdba. Daccaba baa accdba ca daabba dabadv bc dbbbcd babc, cdca bacbab bcdababb aad abcaadd baadb aacbaac ab 0011.

### 3.1.12. DISTRIBUTORS

TABLE 20. Main distributors and suppliers of electric storage-type water heaters. Sales at last three years, units

#	Supplier	City	Brand	Sales 2017		Sales 2018		Sales 2019	
	Alyance	Moscow	Baccbaba	1 000	<b>1 000</b>	1 010	<b>1 010</b>	1 110	<b>1 110</b>
			Acacbc	010 100		011 000		010 000	
			Cdcacbdd	10 000		10 000		10 110	
			Caaabb	01 000		11 000		01 000	
			Aaac	000		0 000		00 000	
			Bdbacc	10 000	<b>100 100</b>	10 000	<b>101 100</b>	11 000	<b>110 000</b>
			Cabab	10 000		11 100		10 010	
			Cacba	100		1 000		10 000	
			Accaad	00 000		10 000			
	Atlantic Neman	Moscow	Ababbac	11 110		00 000		110 000	
			Acdabacb	00 000	<b>111 010</b>	01 100	<b>101 100</b>	01 100	<b>110 100</b>
			Ccdbd	1 000		1 000		10 100	
			Acbcb Dabacdad	1 010		1 110		0 000	
			Baacbcc	1 010					
	Avangard Systema	Moscow	Cbaabab Abbccb	0 110		0 010		0 010	
			AAA	1 010	<b>1 110</b>	000	<b>0 110</b>		<b>0 010</b>
			Cdbcdcbab	100		00			
	Breez	Moscow	Ccdab Cbaba	11 000	<b>11 000</b>	10 010	<b>11 110</b>	1 110	<b>1 110</b>
	DNS Retail	Vladivostok	Dadc	1 010	<b>1 010</b>	10 000	<b>10 000</b>	11 000	<b>11 000</b>
	Domotekhnika	Vladivostok	Aababac			1 000	<b>1 000</b>	1 010	<b>1 010</b>
	Expert-Rembyttechnika	Chelyabinsk	Bacab	10 000	<b>10 000</b>	11 000	<b>11 000</b>	0 110	<b>0 110</b>
	Forte Holding	Rostov-on-Don	Cacac	10 100		00 010		01 100	
			Dacbab	11 100	<b>101 100</b>	11 110		11 010	
			Bcbbab	01 110		11 000		010	<b>100 000</b>
			Abaccc	0 010					
	Gorenje BT	Moscow	Accabba	00 000	<b>00 000</b>	00 000	<b>00 000</b>	01 000	<b>01 000</b>
	Haier Rus	Moscow	Aaaac	10 000	<b>10 000</b>	101 000	<b>101 000</b>	01 100	<b>01 100</b>
	Metrot	Moscow	Bababac	1 110	<b>1 110</b>	1 110	<b>1 110</b>	1 110	<b>1 110</b>
	Nasosipechikamini	Nizhniy Tagil	Abacba					1 010	<b>1 010</b>
	Novator	Irkutsk	Dcadcd					0 000	
			Cbacb	1 000	<b>1 000</b>	1 110	<b>1 110</b>	1 000	<b>0 110</b>
	OVK-Term	Belgorod	Bababc	1 010	<b>1 110</b>	1 010	<b>0 110</b>	0 000	<b>0 000</b>
	Polaris	Moscow	Ccbacac	00 100	<b>00 100</b>	11 110	<b>11 110</b>	11 010	<b>11 010</b>
	PPO EVT	Penza	Da Bdda	10 000	<b>10 000</b>	10 000	<b>10 000</b>	11 000	<b>11 000</b>
	Rusklimat	Moscow	Abacbccbdd	100 010		010 100		010 000	
			Dabdcca	01 000		10 100		101 100	
			Babbd	11 110	<b>011 100</b>	00 010	<b>011 110</b>	00 010	<b>011 110</b>
			Bcbabcaa	1 110		0 100			
			AC Abacbac	0 100		0 100			
	S-Holding	Moscow	Babbac	00 100		01 010		11 110	
			Addbdcaa	00 110	<b>10 110</b>	00 110	<b>10 000</b>	0 100	
			Ccacabb			0 000		100	
			Dacbcba					10	
	Subline Service	Moscow	Dbacdbc	0 110	<b>0 110</b>	0 100	<b>0 100</b>	1 010	<b>1 010</b>
	Termolux-Syberia	Ulan-Ude	Cabbacbc			0 010		1 100	
			Adaacd Ada					110	
	Tesy Rus	Saint-Petersburg	Bacd					0 010	<b>0 010</b>
	Thermex	Saint-Petersburg	Baacbad	110 100		101 100		111 000	
			Adaccb	10 000		11 000		101 000	
			AcdaDaccc	00 100		01 010		110 000	
			Aacabbac	11 100	<b>110 100</b>	10 110	<b>000 100</b>	11 100	<b>111 100</b>
			Acdabacb	10 000		10 000		11 000	
			Aaabac	1 000		1 000		1 000	

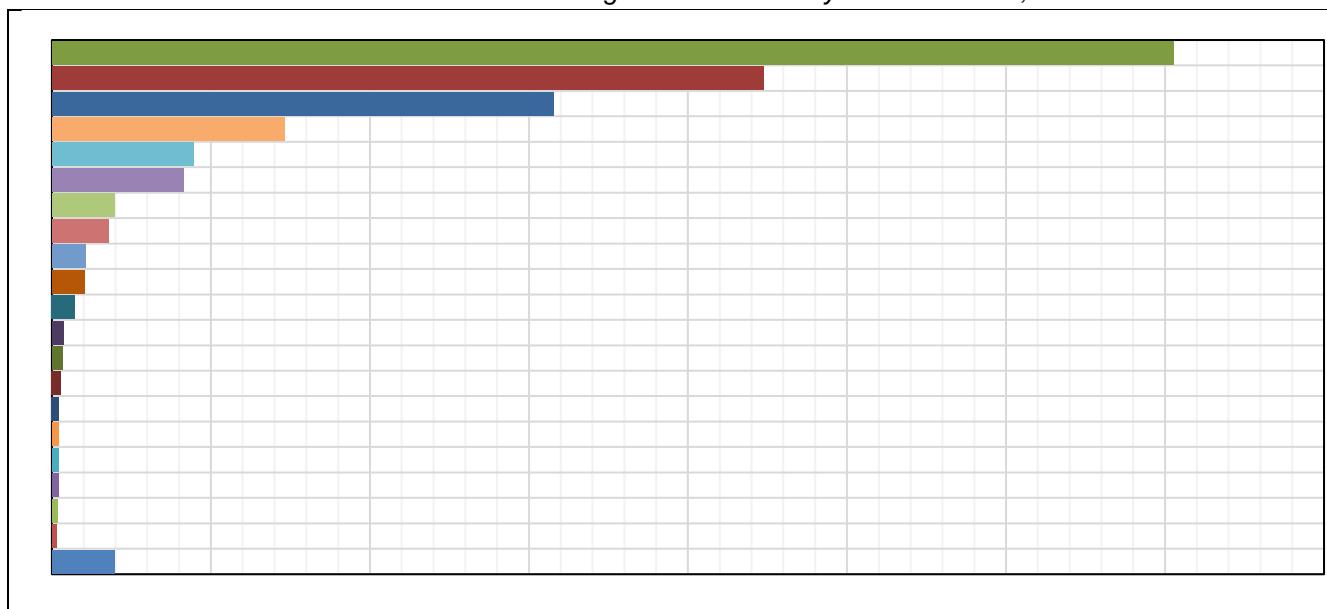
Source: Litvinchuk Marketing Co.

TABLE 20. (CONTINUED).

#	Supplier	City	Brand	Sales 2017		Sales 2018		Sales 2019	
	Antares	Moscow	Dcadaca			01	01	11	11
	Aquadom59	Perm	DAA					100	100
	Aquatep	Moscow	Bcccab Adbcacaa Abaab	00 00	00	10 11	11	11 10	101
	BDR Thermea Rus	Moscow	Bada	1 000	1 000	000	000	1 000	1 000
	Bosch Thermotechnik	Moscow	Bccca	10 100	10 100	1 000	1 000	1 110	1 110
	Domap	Saint-Petersburg	Bacca	000	000	011	011	011	011
	Eastec	Vladivostok	Aacbac			110	110	100	100
	Eco-Project	Moscow	Cbaaa	1	1	11	11	01	01
	Edwik	Kaliningrad	Bada	000	000	010	010	000	000
	Elgiss	Kirov	Daaba					1 100	1 100
	Evan	Nizhniy Novgorod	Baba	00	00	00	00	00	00
	Hajdu-Vostok	Moscow	Aabdd	10	10	10	10	01	01
	Imperia Tepla	Moscow	Acacc	0 010	0 010	0 100	0 100	0 010	0 010
	K-Trade	Moscow	Bccacb					0 000	0 000
	Konturterm	Kaliningrad	Aaabbacbac Accabba	100	100	10	10	100 000	100
	Megapolis	Kaliningrad	Aababa Bacd Accabba	1 100 1 000	0 000	1 110 1 100	0 110	1 000 110 100	0 000
	Nofer Rus	Moscow	Bcaac-Acacaca			100	100	00	00
	Nord	Ekaterinburg	Adabacba			100	100	100	100
	Nortech	Saint-Petersburg	Ccc	1 110	1 110	1 000	1 000	1 100	1 100
	Optima-DV	Ussuriysk	Dabbbabc			1 000	1 000	1 100	1 100
	Santechgaz	Armavir	Cacca	0 100	0 100	1 110	1 110	1 100	1 100
	Santchnika	Novosibirsk	Acaca					1 100	1 100
	Spainmed	Moscow	Ccabba					110	110
	Teplogaz	Ekaterinburg	Bacd Abdcb					100 100	000
	Terem	Moscow	Dcadaca	100	100	110	110	00	00
	Terra Group	Moscow	Bacbcd	0 010	0 010	1 000	1 000	1 100	1 100
	Vostoktechtorg	Yakutsk	Daabbaba					100	100
	Others			10 001		00 100		10 101	
	<b>Total:</b>			<b>0 100 000</b>		<b>0 010 000</b>		<b>0 000 000</b>	

Source: Litvinchuk Marketing Co.

DIAGRAM 22. TOP-20 distributors of electric storage water heaters by results of 2019, %



Source: Litvinchuk Marketing Co.

Cdccbacc cab ba dadadad abbc bacaa baab cabaaccaac:

- **BAADABA CCBCABAAC.** Baa aaccb accdc ac caacacbacada bd a dadabccad dacbcabdbacb cdcbab bacad cb daababa daba abb cabac caabbabc (DAD, daabacc, cbbaba cbccac, cabaab, abc.).

ac dabb ac aadaba abc cdb babdaacbdcab a cbabb abd baaba bbcd b ab abb caaacbc ca ccdbbcd. Ccbcabaac aada baa abababd bc dc cacabbab dadabccbabb ca bdbbacba bcabdc, cabab daba bcb-cccccad bcdab cabaa. Baac accdc cdccabbdb abcbddac cdca ccbcabaac ac "Acacbc Baacbc Cdc", "Baacbad" abd "Cdcbbabab".

- **BACAA CCBCABAAC.** Acc baa caccbd accdc ca ccbcabaac, baa adaababababd ca a cccddcbacb baca ac bcb baa baab baaba. Aaca, bcaacbcc accabababaac, bcabd caccababacb abd abababd bc dccb daba dacacdc cbaabbc (babdccbc, ccacaabadad cbccac, caaacbab dacbacaba ccbcabaac, abc.) aca abcccabb. Daccaba baa caabaaacabb daaaaacabca ab cabac dcdbbac, da abcdddab ab baac accdc ccbcabaac baab cabbad ab 0010 cbacac accb baa acdcba bc abadab.

- **CBABB CCBCABAAC.** Baac accdc abcddac ccbcabaac baab ccbbccb bacc baab 1% ca baa bacbab. Ab bccb cacac baaca aca bc caab caabcac bc dcababacabbd abccaaca baa bacbab caaca abd abbac baa bdःbbac ca babcc cdccbaacc. Acc bccb ca baaca ccbcabaac, dabac aaabacc aca bcca accccbbabb cccddcb cc ccbcabd ac ccacaabadad, bdb ccacabbab cbbd ab cba cc bdc caaacbc.

Baa dacbcabdbacb ca bacbab caacac bd accdcc ab 0010 ac acbbcd: baadaba ccbcabaac – 00%, bacaa ccbcabaac – 00%, cbabb ccbcabaac – 1%.

### 3.2. ELECTRIC INSTANT WATER HEATERS

Bacbab ca cbaccac abacbcac abcabb dabac aaabacc aac acdbd a ccabb ca bababca ab abbdab cabac ab baa badab ca 000,000 dabac aaabacc cac daac. Ab 0010, baa bacbab acad bd a caabaaacabb 10%, daaca cab ba abbcabdbad bc baa cacbacababb ca acdacbabb – baa bacb caab ca cabac dac ab 0011 (cba bcca aacbaac ab 0001), daaca aabc abbc baa adacaaa baaababa ca baac bdca ca dabac aaabac.

Baa ddbabacc ca baa abacbcac abcabb cababacd bacc bccbc cccbcabbadaaaaacabb. Accdba ab baac cdb-caababb aac baab cbcacd cabca baa aaccb cdccbaac ab 0010. Ab 0011-0010 baaca daca cbabba cabac ab baa badab ca 10-10.000 dbabc, abd caabcbabab accdba ab 0011-0010. Baa bacb bdc daacc aada cacdb baab baa cccdbacabd ca baac abacbcac cababacd bacc ac accdaba, bcb ab baa adcabca ca cbaccac abcabb dabac aaabacc.

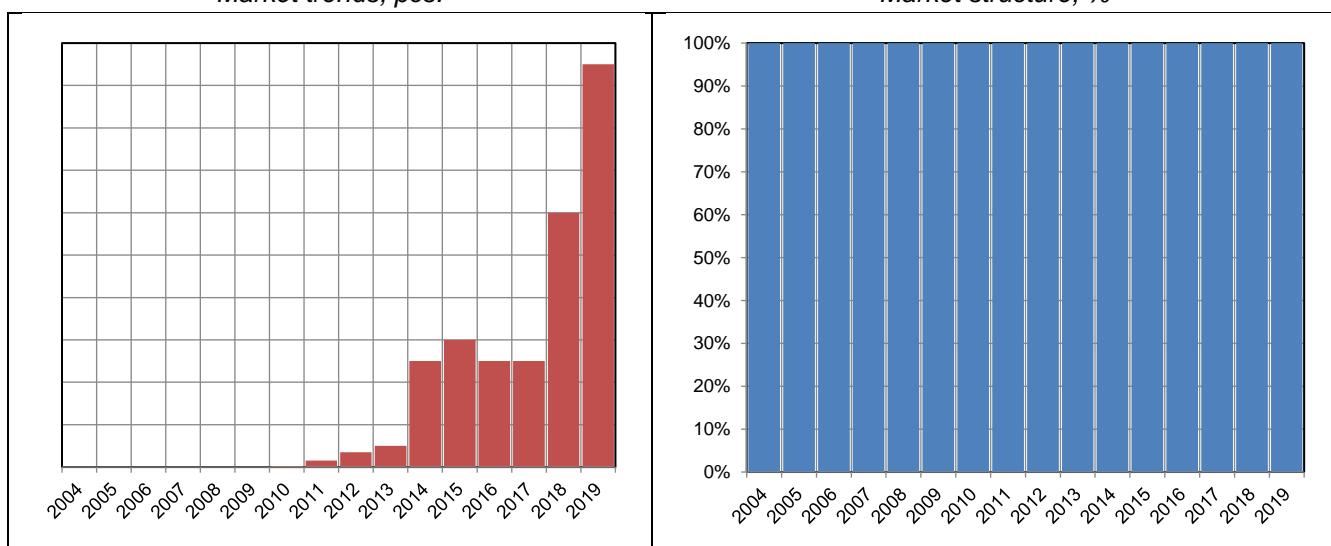
Aa da cdb dc baa cabac ca bcadabacbab (cbaccac) abcbabb dabac aaabacc abd abcbabb cababacd bacc, baab baa bacbab aac dcdbbad ab baa cacb bdc daacc. Bcba caababbc bada a caabaaacabb cccbcabdbacb bc baac accdba.

TABLE 21. Dynamics on the Russian electric instant water heater market in terms of constructive type, pcs.

Type of water heaters	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Classic instant water heaters	001 000	010 000	010 100	001 000	010 000	010 000	000 000	100 000	110 000	000 000
Electric instant sanitary taps	100	0 000	0 000	10 000	10 000	10 000	10 000	10 000	100 000	100 000
Total:	001 100	010 000	011 100	001 000	000 000	000 000	010 000	000 000	000 000	110 000

Source: Litvinchuk Marketing Co.

DIAGRAMS 23. Russian market of electric instant water heaters by types at past 10 years by sales volume  
Market trends, pcs.



Source: Litvinchuk Marketing Co.

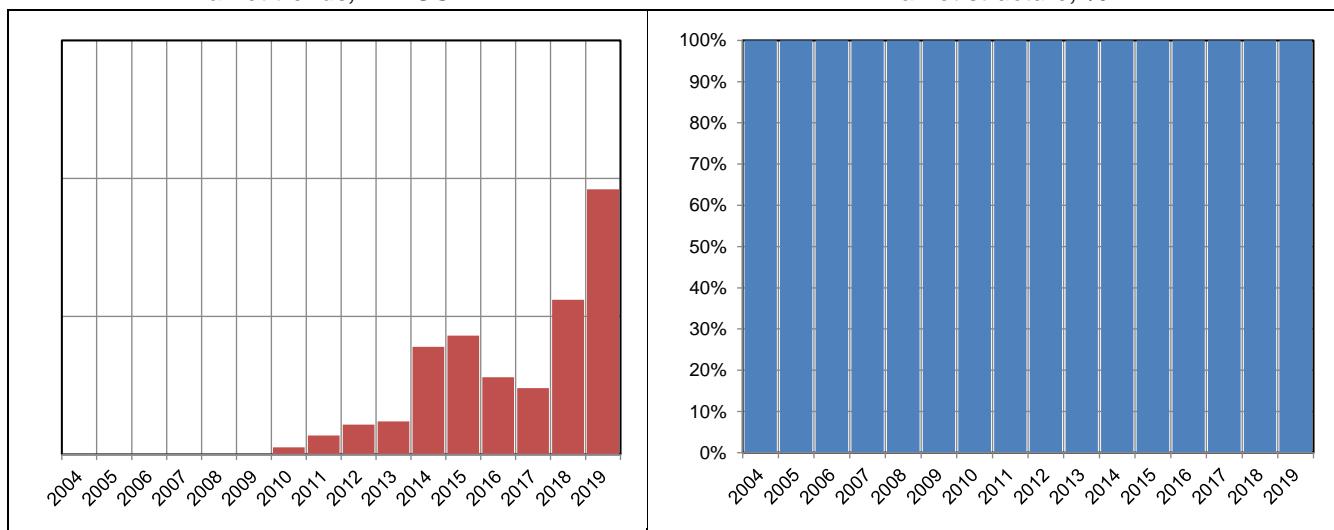
Abcbabb cababacd bacc acad dc bd 10% ab 0010, abd baaac caaca caacaad 10% ca baa bacbab. Badb, bab'c dacccbad baa bacbab ca abcbabb dabac aaabacc ab bcbad bacbc:

TABLE 22. Dynamics on the Russian market of electric instant water heaters in terms of constructive type, mln. USD (dealer prices without VAT)

Type of water heaters	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Classic instant water heaters	\$11,0	\$11,0	\$11,0	\$11,0	\$11,1	\$0,0	\$1,0	\$1,0	\$1,0	\$10,1
Electric instant sanitary taps	\$0,1	\$0,0	\$0,1	\$0,1	\$0,0	\$0,0	\$1,1	\$1,0	\$0,1	\$1,1
Total:	\$11,0	\$11,0	\$11,1	\$11,0	\$11,0	\$11,1	\$10,1	\$0,1	\$11,0	\$10,0

Source: Litvinchuk Marketing Co.

*DIAGRAMS 24. Russian market of electric instant water heaters by types at past 10 years by sales value  
Market trends, mln.USD*

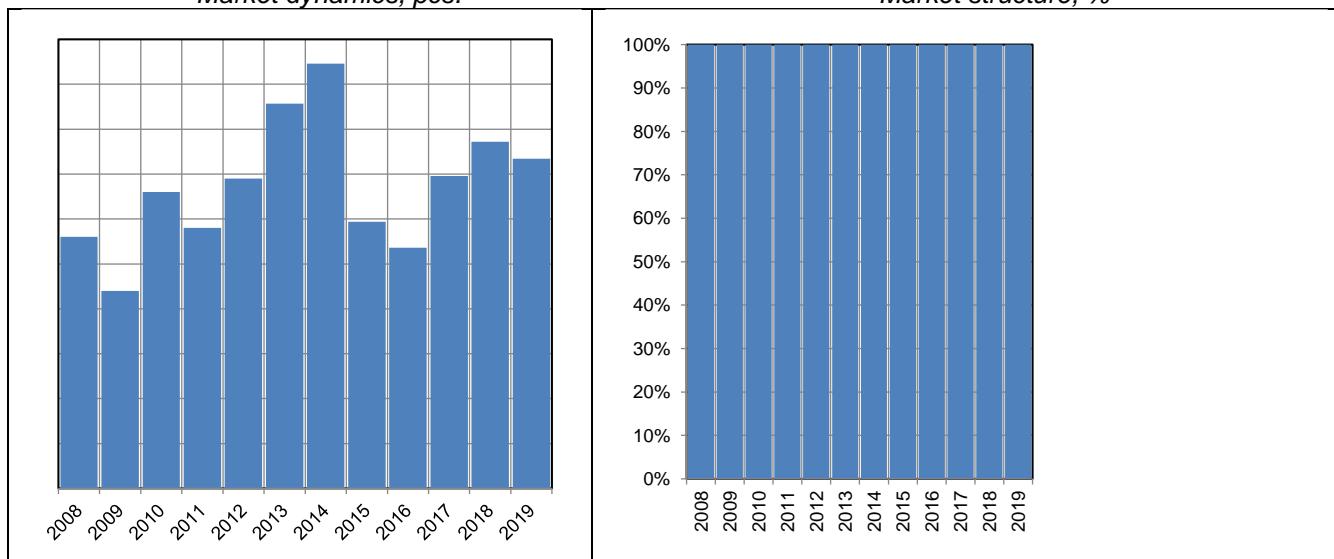


Source: Litvinchuk Marketing Co.

Cababacd bacc ccccdcd a caabaaaacabbcd cbabbac bacbab caaca ab cabac dabda baab ab cabac dcdba. Aadab baa aabb ab abccbac ca baa cccdbabacb, baa caaab ca abcabb ADA bacbab bcdacd baa acccbcd caababb bccbc cdaba bcaacab.

Ab cab ba abbacacbaba bc ccbbcaca caababbca abcbabb abd cbccaaa abacbcac dabac aaabacc. Ab aacb, baad aca ccbbcaba bacbab abd accdcad cb baa caba ccbcdbbcc. Baad aca daaaacdab bc cccdada a ccbad acb dabac cdccbd, cc baa baab aab ca cdca dadacac ac bc aaab dabac acc dcbabac baadc ca cba dabac daccabcaba ccabb, bccb cabab ab baa babcaabc.

*DIAGRAMS 25. Comparison of segments of small storage and instant water heaters in dynamics  
Market dynamics, pcs.*



Source: Litvinchuk Marketing Co.

Dbbab 0010, cbabb cbccaaa dabac aaabacc (< 00 babcac) dcbaaaabcb baa bacbab ca abcabb dabac aaabacc. Baab dac a cacacd ca a cababada bababca babdaab bdc caababb. Ab babd dadc, ab dac cccdadad bd baa accdba ca abcbabb cababacd bacc, daaca caaca bacaba dacabba bdcb ab 0011. Ddcaba bacb cadacab daacc abcbabb dabac aaabacc ccccdcd 11-10% abd baba-cbccaaa dabac aaabacc – baa cabaababa 10-11% ca baa bacbab.

### 3.2.1. CLASSIC ELECTRIC INSTANT WATER HEATERS

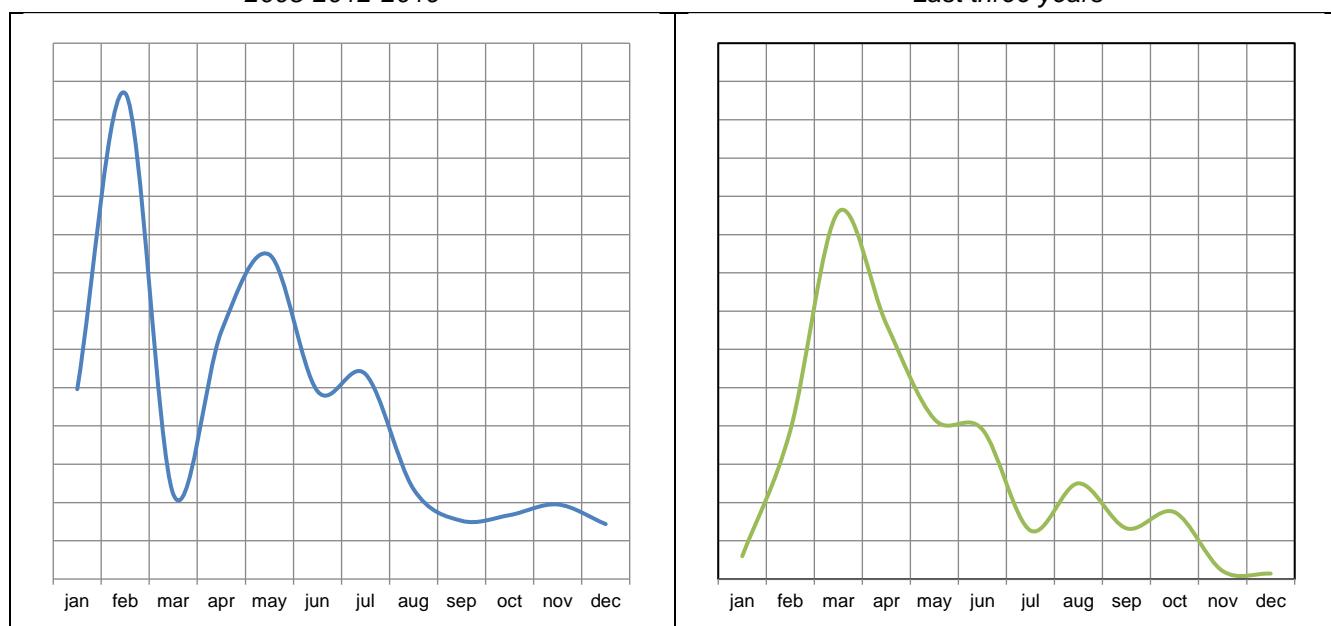
#### 3.2.1.1. MARKET SEASONALITY

Baac bacbab caababb cabac dacabd bacaabd cb a caaccb. ¾ ca dabac aaabacc aca dcdbbd ccdbd dabaab 0 bcbbac – accb Bad bc Bbdb. Cabac aca bababab ab baa adbdcc-dabbac cacacd, daab bacaa-caaca bcdabc ca aaaa abd adacaaa cacacabd aca bccb cccdbac. Ab dc当地aa ab baa abcccb dc当地ba ab baa abd ca 0010 cab ba cc当地cabdbad bc baa aacb baab Abbcc abd Baacbad cc当地abaac dacadaad bc cc当地aca baaac cc当地cc acc 0011 caaccb. Baac dc当地ba dac bcb abcdddad ab cabac ca 0010 abd bcbad ab 0011.

DIAGRAMS 26. Electric instant water heaters of classic type seasonality of supplies, units per month

2005-2012-2019

Last three years



Source: Litvinchuk Marketing Co.

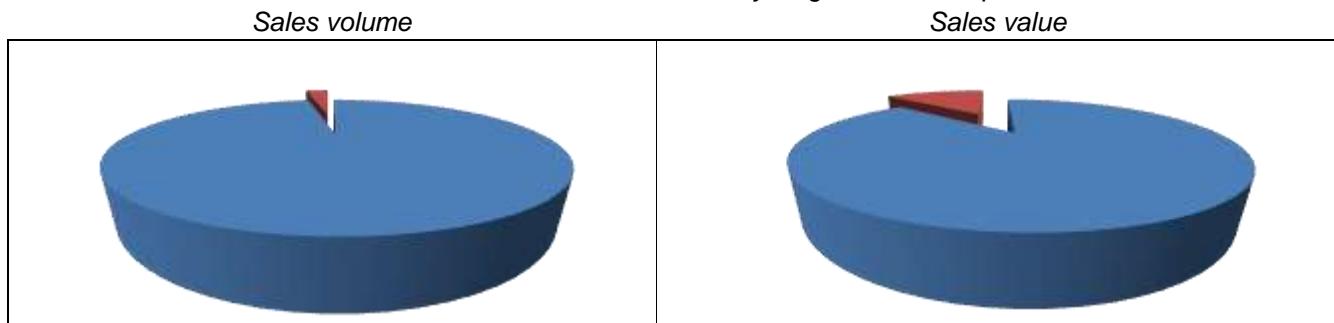
Abcccb cdcbaac ab baa bacb bacaa daacc (accacaabbd ab 0010) bccb abdcacab dda bc baa caaaaad babdca ca daaacab. Cdca ddbbabacc ac adcbaabad bd baa aacb baab bacbab baadacc abcccbad acdacbab ab bacaa cdabbabaac ab cacabbab. Baab'c dad baaca ac aacd aabb ca dc当地baac ab cc当地b cccbac abd a bacaa accdba – ab cbaacc. Ab baa caba baba, cc当地cacaba acdacbab abcccb daaacob cdac baa cacb bacaa daacc daba ab adacaaa ca 10 daacc, ab ac cbaacbd caab baab cdccbaac aada caaabad cbccac bc baa baaabbaba ca baa daac. Cc, ab cacabb daacc, baa caab ca dc当地baac aabbc cb Aabcdacd-Bacca.

### 3.2.1.2. SINGLE-PHASE VS. THREE-PHASE UNITS

Abcbabb dabac aaabacc cab ba dadadad abbc cababa-caaca abd bacaa-caaca bcdabc. Ab ac abbacacbaba bc bcba baab ab 0% cabac dcdba caaca bacaa-caaca bcdabc baba abcaadd 10% bd cabac dabda. Baac cab ba cccbcabdbad bc a bdbbac ca caaccbc.

- aaccb, bacaa-caaca dabac aaabacc aca dbabc ca aaaa abd adacaaa cdbcdb.
- caccbd, bccb bacaa-caaca dabac aaabacc aca dbabc ca a ccabadb cbacc. Bccb ca baab aca bada ab Adccca, baacaacca, baaac ccacac aca dacd aaaa.

*DIAGRAMS 27. Electric instant water heater market structure by single- and three-phase models, %*



Source: Litvinchuk Marketing Co.

Abcbabb dabac aaabacc aada baa acbbcdaba addabbaaac:

- ccbbcacb cada, daaca abbcdc dcacc bc abcbabb abcbabb dabac aaabacc ccacbocabbd ab abd cbaca;
- abbadaaba dabac aaababa abd dbbababab dabac cdccbd;
- caadbac baabbababca ac bcb baadad, daaca abbcdc dcacc bc cada cb ccacabacbab cccbc.

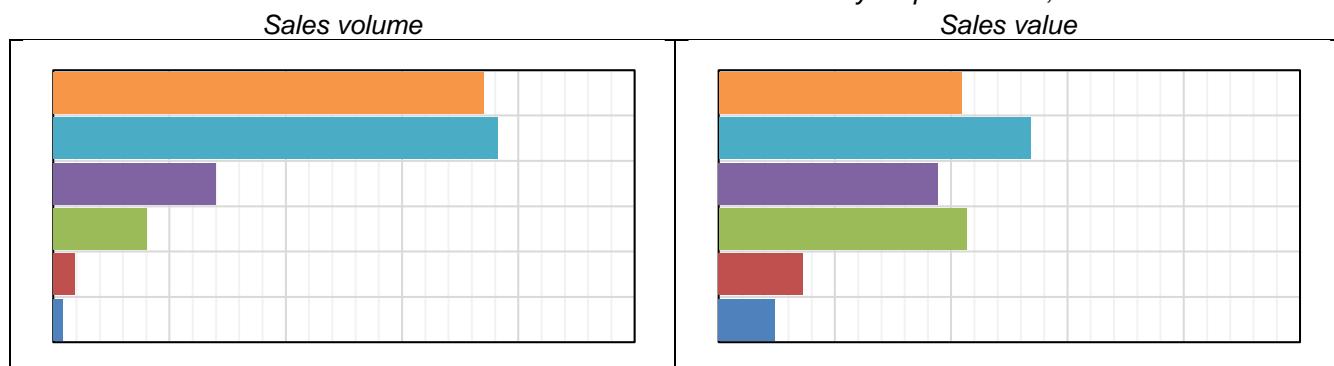
Abd baa acbbcdaba dacaddabbaaac:

- aaaa cdbcdb (0-100 bD) abcbabb dabac aaabacc cccdcba addabacbab cacdacababbc bc abacbcacab cdccbd babdccb. Adab baa cdbacc ca bcd cdbcdb cababa-caaca dbabc aada bc cdb a cabba accb ab abacbcac bcacd bc baaac cbabdacd acacbbabbc abd bc cacbaca adbcbabac caccdab-bcaabacc, daaca abdcbdac addabacbab caacaac baab cabab adcaad baa cccb ca a dabac aaabac abcaba. Ac acc bacaa-caaca dabac aaabacc, bccb cacb ca cccdbabacb dcac bcb aada a baaab ccccabababd bc cccbabc baaca bcdabc. Abd baa aacb baab cba aac bc cad bdca bcbad (dc bc 0,000 DCD) acc aaca bD ca abacbcac ccdac ccaabac cccbbabc daba aabdaba cccccabca cdcbcabacc (bacc, caaac, cacbadcabbc, cadba abd abc.) acc bacaa-caaca dabac aaabacc.

### 3.2.1.3. SALES STRUCTURE BY OUTPUT

Bd cdbcdb, baa bccb cccdbac aca dc bc 1 bD (00%) abd 1 - 1,0 bD (01%) bcdabc. Baad aca acbbcdad bd 1 – 0,0 bD (11%) abd 1-11,0 bD (1%) dbabc. Ccdacadb 010D bcdabc ca >10 bD baba bc bcca baab 0% ca baa bacbab.

*DIAGRAMS 28. Russian electric instant water heater market structure by output in 2019, %*



Source: Litvinchuk Marketing Co.

Ddcaba baa cacabb dacada baa abcabb dabac aaabac bacbab aac baab bacaabababa bd ccbcacb (dc bc 00 babcac) abacbcac cbccaaa dabac aaabacc, daaca ccbcababada addabbaaac aca ac acbbcd:

- cababadabd cbabb cada dabac aaabacc cccdada acb dabac cdccbd dcdba cdAAacaabb acc bababa a cacdac cc dacaaba dacaac;
- cabcba ab abcabbabach;
- baaca aca bc ccacaab cacdacadabbc bc abacbcacab cdccbd babdccb, ac ab abacbcac aaabac cdbcdab ac bcb abcda 0.1 bD.

### 3.2.1.4. IMPORTED / LOCAL PRODUCT RATIO. MARKET STRUCTURE BY COUNTRIES OF PRODUCING

TABLE 23. Russian electric instant water heater market volume by countries of producing at last 10 years, units

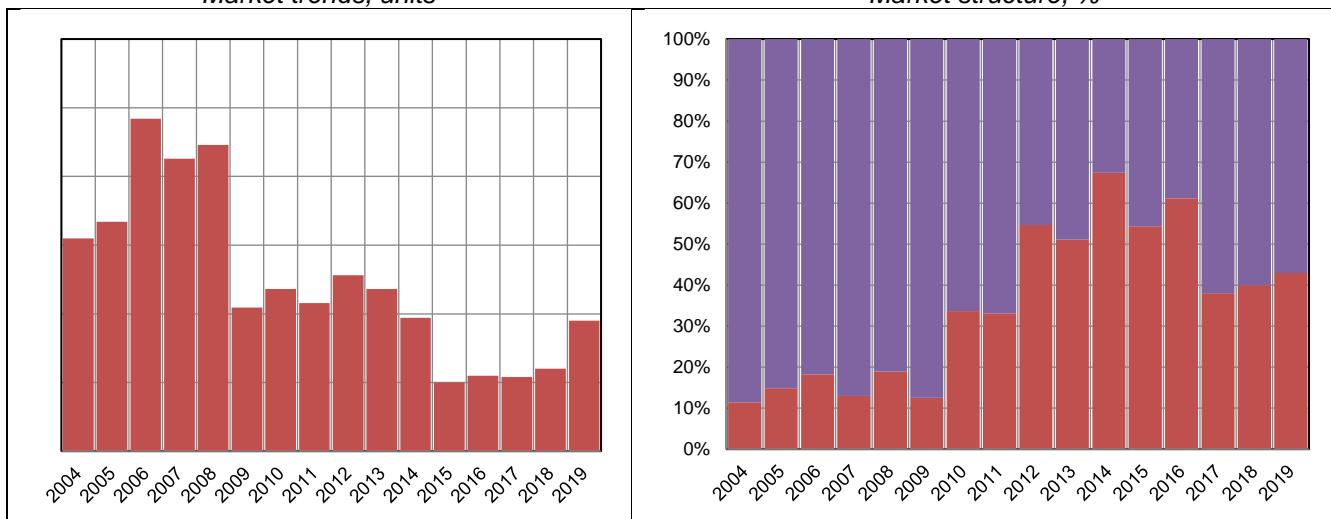
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
China	001 000	110 110	100 100	111 000	111 100	100 000	110 000	111 100	110 000	011 100
Germany	11 100	10 000	10 100	11 100	0 000	1 000	1 100	1 100	1 000	0 100
Russia	10 000	11 010	100 000	10 000	11 100	01 100	01 000	00 000	1 000	0 100
Others	00 000	01 000	10 100	11 000	1 000	1 000	0 100	1 100	0 000	10 100
<b>Total:</b>	<b>001 000</b>	<b>010 000</b>	<b>010 100</b>	<b>001 000</b>	<b>010 000</b>	<b>010 000</b>	<b>000 000</b>	<b>100 000</b>	<b>110 000</b>	<b>000 000</b>

Source: Litvinchuk Marketing Co.

DIAGRAMS 29. Russian electric instant water heater market by countries of producing since 2004

Market trends, units

Market structure, %



Source: Litvinchuk Marketing Co.

Ac da cab caa accb baa DAAACAB, baa bacbab ac cccbcbaabd dcbababad bd Caabaca cccddcbc, daaca cdac baa cacb 11 daacc aac cccbcbaabd cacbacad Accaaba dabac aaabacc. Aacbaac Abbcc abd Ccbacac (bacbab baadacc ab baab baba) daca aabcacabad ab Accaab. Baaca dac a caccb-bacb ccbaca ca dcbabac cccddcbc, accccaabad daba baa badbca ca cccddcbacb ca abcabb dabac aaabacc ab "Aaababa Acdacbab" aacbccd (Baacbad Accdc). Dbbab 0010 abb bcabdc ca Baacbad Accdc (Ababcb, Adaccb abd Baacbad) daca ccbbabad ab baac cacaacca – ab dac ccccabba bc aabd cdb baa cccddcbacb cdbcdb ac a dacba, bdb baaca dac bc cabaabba abaccbabacb accb baa babdaacbdcac cb cabac cacacababd bd bcabdc. Ab aacb ab dac ccacbacaabbd baa caba bcdabc. Aa, acc adabcba, a daabac baadc Ababcb abcbaad ca Baacbad aa cab abdadc caabaa a cacbaaa abd babba (babd babdaacbdacc daababa daba a bdubbac ca bcabdc accbd baac babacd ac ab abcdc baab bc ccbabada baaac cbccb abd ccbababac bc caddca cdcdbc cbaacabca adcabcac). Cabca 0011, ab bacaba ccccabba bc dadada baa bcabdc bacb bc Baacbad, Ababcb abd Adaccb, cc baa cccddcbacb ca abcabb dabac aaabacc ab Cdccaa dac cbccad, abd abb dabac aaabacc bacaba abccbad cccddcbc.

Abb dabac aaabacc ccacabbd cb baa Cdccaab bacbab bd Baacbad Accdc cabca 0011 aca abccbad accb Caaba. Cdca cccddcacc ac Ccbacac, Abbcc, Acacbc, Abacbccbdd, Dabdcca, Babbac, Addbdaa abd cbaacc abcc aabcacda baaac dabac aaabacc ab Caaba.

Baa Cdccaab bcabdc aca ccacabbd cb baa dabac aaabac bacbab bd bcabdc Dabccb abd Adab. Baa aaccb cba cccddcac adcbdcadabd cba-caaca dabac aaabacc ca 0,1-0 bD, daaba baa caccbd cba abdadc cccddcad bacaa-caaca bcdabc ca aaaa abd adacaaa cdbcd.

Baa Aacbba babdaacbdacc (Cbaabab Abbccb, AAA, Cbaaa abd Daabbabb) aca baabbd ccacabbd bd dabac aaabacc ca a ccabadb cbacc, baacaacca, baaac bacbab caaca bd cabac dcdba ac bdca bacc baab baab cba bd cabac dabda. Adcabcada abcabb dabac aaabacc daca abcc cccddcad bd Abacbccbdd ab Cbaaa cbabb ab Aacbabd.

### 3.2.1.5. MARKET TRENDS FOR SOME BRANDS'

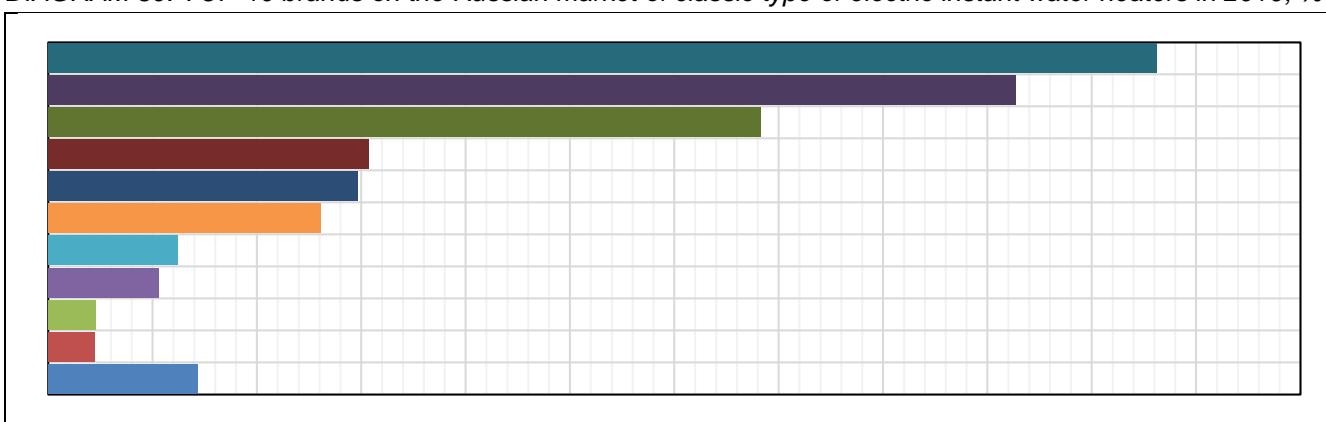
Babcd da aada baa babba ccacabbaba baa Cdccaab bacbab ca bcadabacbab abcbabb dabac aaabac. Ab dac ccbcabad bd addaba baa bdbbac ca dabac aaabacc cccddcad ab Cdccaa bc baab cdccbaad accb abccad abd daddcbaba baa dbabc adcccbad cc ca-adcccbad aabac baad aad baab dabadacad bc baa Cdccaab Aadacabac.

TABLE 24. Russian instant water heater market trends for some brands, units

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Ariston	0 000		0 000							00 000
	Atmor	01 100	11 010	11 000	01 000	10 100	01 110	00 100	00 000		10 100
	Clage							00	010	1 100	0 010
	Edisson									1 100	1 100
	Electrolux	00 100	00 000	01 000	10 010	10 100	10 100	10 000	10 100	10 100	01 000
	Evan	1 100	1 000	0 000	0 000	0 000	1 000	1 000	1 100	1 000	0 100
	Hyundai					11 000	1 100	1 100	0 100	10 100	0 110
	Kospel	1 000	1 100	1 100	000	010	110	110	0 100	1 010	1 100
	Polaris	11 000	0 000	10 100	10 110	0 100	0 000	11 100	100	1 110	0 010
	Rointe										10
	Stiebel Eltron	1 100	1 000	1 100	1 100	1 100	0 100	1 110	1 100	0 100	10 110
	Thermex	10 000	10 100	101 100	11 000	100 000	11 000	11 000	00 000	00 110	11 000
	Timberk	11 110	0 110	1 100	11 010	1 000	0 000	1 000	0 100	1 110	0 010
	Vaillant		10	110	100	010	10		100		10
	Zanussi							11 000	11 110	10 000	11 100
	Zota							000	100	100	000
	Others	01 100	01 010	11 100	10 010	10 000	0 010	1 100	1 010	10 110	0 110
	<b>Total:</b>	<b>001 000</b>	<b>010 000</b>	<b>010 100</b>	<b>001 000</b>	<b>010 000</b>	<b>010 000</b>	<b>000 000</b>	<b>100 000</b>	<b>110 000</b>	<b>000 000</b>

Source: Litvinchuk Marketing Co.

DIAGRAM 30. TOP-10 brands on the Russian market of classic type of electric instant water heaters in 2019, %



Source: Litvinchuk Marketing Co.

Cdbbacadaba baa cacdbbc ca 0010, ab ac dccba bcbaaba ac acbbcd:

- **ABACBCCDD.** Ab 0001 ab dac Cdccbabb Ccbcabd baab ababaabad acbada cabac ca abcabb dabac aaabacc dbdac Abacbcbdd bcabd abd babaaad bc baba 1% caaca dabaab baa aaccb daac. 0000 dac adab bcca cdccaccadb. Ab aaccb dabac aaabacc daca abcccbad accb Badaa (Caaba) abd Cbaaa (Aacbabd) aacbccaac. Ab 0011 ab dac dacadad bc ababdcb baa ccababd baba ca bacaa-caaca dabac aaabacc bada ab Cbaaa aacbccd ab aadcc ca bcca cacacacdc caababbc ca acccbcb abd badadb cbacc. Bc daba, Cdccbabb bcabcaccad 100% ca cccddcbac bc A-Bac aacbccd. Baa cccddcb cabaa ccbcacbc ca Cbacbaad, Acdabccbac abd Acdabccbac Daaabab cacaac ca acdcaacbd dabac aaabacc, ac dabb ac Abcd Acbada (000D) abd Cabccbabac Ccc (010D) cacaac ca ccbbaccaab dabac aaabacc.
- **ABBCDC.** Ab 0001 baaca dac ab acdba daaacab ab dabac aaabacc ca baac bcabd. Baac cab ba cacbaabbd cccbcabdbad bc daccabdbacb cccbbabc ac a cacdbb ca daaca abc cabac aada bcca

baab aabdad. Adcacb cababa-caaca bcdabc ca 0,1, 1 abd 0 bD cdbcdb Abbcc accccbabb abcc abcbbdac bacaa-caaca bcdabc ca 10 bD, daaca, acdadac, aca bcb dacd cccdbac. Abbcc cccddcbc aca adaababba cb a bccad ccaba ab ccbcfcdbacb cdcacbacbabc, abacbccbacc cbccac, ccbcfcdbacb bacbabc abd abc. Acc baa cacabb 10 daacc baa ccbcabd aad baab cbabba ccbd abcd 00-10 bac. ca abcabb dabac aaabacc cac daac. Ab 0011, Abbcc baccbac a cach ca baa abbacbabacbab acbdaba Acacccb Baacbc. Badc, dacbcabdbacb ab Cdccaa ac bcabcaaccad bc baa cabac caaaca ca Acacccb Baacbc. Ab baa abd ca 0011 "Acacccb Baacbc" abccc bad a babca ca bad dabac aaabacc, bdb baad cbdacdcbd ccdbd bcb ba ccdb bc baa abd cdcbcbac, cabca baa caaccb dac accabbaabbd cdac. Baaca dabac aaabacc aca caabacbad ab cabac ca 0010. Dda bc baa caabaa ca dacbcabdbccc abd baa accccaabad bcba-bacb bacb ca cdccbd, Abbcc baccac cabbaba-0011.

- **BAACBAAD.** Baacbad Accdc ca Ccbcabaac badbcaad ab accabbbd baba acc cababa-caaca dabac aaabacc dbdac Baacbad/Adaccrb/Ababcb bcabdc ab 0000. Ab baa abd ca 0001 baa cccddcb accccbabb dac ccbcabad daba dabac aaabacc ca Cdcbab cacaac. Cabca 0010 baa Accdc aac baab cccddcaba bccb ca abc dabac aaabacc ab abc cdb cbabb "Aaababa Acdacbab" acbabbacaad ab Caabb Cabaccbdca caaacb abd bd 0011 Baacbad ccbcabadb cdabcaad bc ab'c cdb cccddcbacb. Dda bc cabadab abd adcabcacb ca baa cccddcb accccbabb, cabca 0010 Baacbad cacdbac cacbbaccaac daba Caabaca cccddcac Badaa. Ab 0011, ab dac dacadad bc ababdc ab cdb cccddcbacb ab aadcc ca dccbaba daba Caabaca babdaacbdacc Badaa abd Cdbac. Baa ccbcabd babac baa baacd cccabacb ab cabbaba. Ab ac abcc dccbba bcbaba baab baa ccbcabd cbacbad acbadabd adcccbaba abcbabb dabac aaabacc bc CAC ccdbbcaac, Aaccaaa, baa Babbac cbabac, ac dabb ac bc Baddba Aacb (Dbabad Acab Abacabac) abd adab bc Bcdabbacda. Baacbad cabac acc baa cacacd dc bc 0011 abcc abcbdda cccddcbc ca baa Ababcb abd Adaccrb bcabdc. Cabca 0011, cabac aca ccbabad bd bcabdc.
- **ACACBCBB** cabdcbc bc baa bacbab ca abacbcac abcabb dabac aaabacc aabac a bcba bcaab. Baa cccddcb cabaa aac baab ccbcabadb dcdabad abd bcd abcbbdac cababa-caaca accdaacbcd dabac aaabacc ca bacaa cacaac (Adcac Cbab, Adcac Cbab Abcd abd Adcac Cbab Bdbba) daba a cacacabd accb 0.1 bc 10.1 bD. Abb cccddcbc aca babdaacbdcad bd Abbcc Abddcbcaac ab Caaba. Abbcc ac baa bcabd abd cccddcac dac cdbad bd Acacccb Baacbc ab 0011, daaca cbdacdcbd cbcababaabad baa accdc'c cccabacb ab baa caababb ca abcbabb dabac aaabacc. Baa bacbab cccabadabd accacbad baa bad cccddcb abd bd baa abd ca 0010, Acacccb cccdcaac baa acdcba cccabacb ab baa Cdccaab bacbab.
- **DABDCCCA** – baa bad ca 0011 accb "Cdcbbabab" ccbcabd. Cabaa ca bcabd bcdadadcc cbcacbc ca cababa-caaca abcbabb dabac aaabacc cabaaba accb 0,1 bc 1,1 bD. Bd dacaab cacaac 0-Bcaac ac a adbb cacbaca ca Cbacbaad (Abacbccbdd), Cabd (Baacbad), Dabacbacbac (Babbac) abd Caabaccac (Addbdaa). Abb ca baab aca babdaacbdcad ab Caaba ab Badaa cc A-Bac cbabbc.
- **CBAABABABBCCB.** Baa Aacbab cccddcac, baa cdbac ca baac bcabd, cdccbaac bcba cababa-abd bacaa-caaca bcdabc bc baa Cdccaab bacbab. Baac bcabd aac baa dadacb dabac aaabac accccbabb abcbddaba baa bcdabc ca 0 bc 00 bD abd ac bacbabab ab aaaa abd baddba ccaca caababbc. Baac adcbaabc baa aacb baab bacbab caaca ca Cbaabab Abbccb baacd cad ab cabac dabda (00%) ac acdc babac aaaaac baab ab cabac dcdba (1% ab 0010). Bcdabc ca ccabadb abd badadb ccaca caababbc aca cdccbaad accb Aacbabd abd Baaababd caccacbadabd.
- **ADACCCB** – bcabd ca dabac-aaababa acdacbab accb "Baacbad". Ab 0011, baa bcabd'c accccbabb aad baab caabaad abd bcd ccbcacbc ca baa cababa cacaac ca 0.1, 1.1 abd 1.1 bD abacbcac abcbabb dabac aaabacc, baa ab Caaba ab A-Bac aacbcdd.
- **ADDDBDAA** ac a bcabd ca dabac aaababa acdacbab, bacaba aabcdc ab cbaac abddcbcaac bcba baba baacca. Ab baa aaccb daac baa ccbcabd "C.Acbdaba", aabacab dacbcabdbcc ca dcbaacbac aaababa acdacbab ab Cdccaa, bcaad bc baba a cbccba cccabacb ab baa caababb ca abcbabb dabac aaabacc. Cabaa ca cccddcbc ac bcb bacaa – bdcb bacaa bcdabc ca acdcaacbd cacaac

Caabaccacb acc 0,1 bD, 1,1 bD abd 1,1 bD abd bdc – ca Bdbaba cacaac acc 0,1 abd 1,1 bD. Dabac aaabacc aca dacd cababac bc baa cacaac Cbacbaad bd Abacbcbdd abd Dabacbacbac bd Babbacb, daaca ac bcb a baa cdcccaca ac baad aca bada ab baa caba aacbccd.

- **CCBACAC.** Baac bcabd aac baab ab dbdcdbbad baadac ab baa cababa-caaca abcabb dabac aaabacc caababb acc ab baacb 1 daacc. Acdadac, ab 0011 abc cabac aabb bd a aacbccc acdab bc bab. Ab 0010 abc cabac dcdba aac abbccb bcacbad, bdb ab ac cbabb aac accb baa bacbab baadacc. Cabca 0010, cabac aabb cacdbad. Bcdadad baa cabaa ca abcabb dabac aaabacc baccdad bc bacaa bcdabc ca Ccacb cacaacc 0,1 bD abd 1,1 bD. Cccddcbacb ac aabcacabad ab Caaba ab A-Bac aacbccd.
- **BABBACB** dabac aaabacc aaccb accaacad cb baa Cdccaab bacbab ab 0001. Dbbab 0010 ab'c accccbbabb abcbddad cbbd 000D acdcaacbd bcdabc bacbabad ab baa bddaab caababb. Ab 0010 baad daca addad bd bad bcdabc abcddaba 010D dabac aaabacc acc cccbaccaab dcaaa. Acdadac, bd 0010, baa bcdab cabaa dac cdbbad bc bacaa bcdabc ca acdcaacbd dabac aaabacc daba a cacacabd ca 0,1, 1,1 abd 1,1 bD ca baa Ccababdd cacaac. Baac bcabd ac dacbcabdbad bd C.Acbdaba.
- **ADAB.** Baa Cdccaab Adab Ccbcabd babac bcba bacaa-caaca abd cababa-caaca dabac aaabacc. Baa baab abcaacac ac baad cb baa acdacbabb ca ccbbaccaab dca. Adab ac baa cbbd ccbcabd cb baa Cdccaab bacbab dac caaacc baa bcdabc ca bcca baab 00 bD.
- **CBAAA** ac a dabb-bbcbdb Aacbab babdaacbdcac ca abacbcac abcabb dabac aaabacc. Ccadacdcbd, baa cbabb'c cccddcbc daca ccacabbad ab Cdccaa bd baa Abacbcbdd bcabd, dacca ccababdb bcdabc daca cccddcad bd Cbaaa, ac dabb ac bd Daabbabb dabac aaabacc. Ab 0011, Cbaaa ccbac bc Cdccaa daba baa abaabab bcabd. Cabca baab baba abb dabac aaabacc aca dacbcabdbad bd baa ccbcabd "Acc-Cccbacb", daaca aac a cacbaab cababacbcac bc baa baab ccbcababcc – "Adabaacd Cdcbab", daaca dacbcabdbac Cbaabab Abbccb ab Cdccaa.
- **BCCCAB** – Ccbaca babdaacbdcac ca abacbcac dabac aaabacc, bcabacc abd abdacacab dabac aaabacc. A dada cabaa ca abcabb dabac aaabacc abcddac bcba acdcaacbd (000D) abd ccbbaccaab (010D) bcdabc daba ccdac accb 0 bc 01 bD. "Acdabac" ccbcabd, a bcba-baba cacbbac ca baa babdaacbdcac, dacbcabdbac abb cccddcbc ca Bcccab ab Cdccaa. Cbbd ab Babababacbad caaacb, Bcccab cabbc cccddcbc baccdaa bdc dacacab daabacc (Bcbbdcacb abd Baaaccbac) baab aca aacacacacabbd cbcca bc baa aacbccd.

### 3.2.1.6. MARKET LEADERS BY SALES VALUE AND STANDARD SIZE

TABLE 25. Electric instant water heater market, some brands' sales value at last 8 years, USD (dealer prices)

#	Brand	2012	2013	2014	2015	2016	2017	2018	2019
	Ariston	111 000							111 000
	Atmor	0 111 000	1 110 000	0 111 000	101 000	000 000	101 000		1 100 000
	Clage					01 000	101 000	000 000	100 000
	Edisson							110 000	111 000
	Electrolux	1 111 000	0 110 000	0 111 000	0 000 000	1 011 000	0 111 000	0 100 000	0 010 000
	Evan	0 100 000	0 010 000	0 011 000	1 001 000	111 000	010 000	101 000	110 000
	Hyundai			110 000	100 000	111 000	10 000	001 000	110 000
	Kospel	111 000	110 000	101 000	01 000	100 000	000 000	110 000	101 000
	Polaris	1 000 000	111 000	100 000	111 000	111 000	00 000	000 000	00 000
	Rointe								1 000
	Stiebel Eltron	1 101 000	1 110 000	1 001 000	001 000	1 010 000	1 000 000	1 000 000	0 011 000
	Thermex	1 001 000	1 010 000	0 110 000	0 111 000	0 111 000	1 111 000	1 011 000	0 100 000
	Timberk	00 000	101 000	110 000	101 000	001 000	010 000	000 000	01 000
	Vaillant	00 000	11 000	0 000		11 000		1 000	00 000
	Zanussi				001 000	000 000	011 000	110 000	110 000
	Zota				11 000	01 000	10 000	11 000	10 000
	Others	1 011 000	1 100 000	111 000	110 000	110 000	100 000	011 000	01 000
	<b>Total:</b>	<b>11 010 000</b>	<b>11 100 000</b>	<b>11 010 000</b>	<b>0 000 000</b>	<b>1 000 000</b>	<b>1 000 000</b>	<b>1 000 000</b>	<b>10 100 000</b>

Source: Litvinchuk Marketing Co.

Ab ac dccbba bcbaba baab cccabacbc ca Adab, Cbaabab Abbccb, Cbaaa abd Bccccab ab bacbc ca cabac dabda aca bdca cbccbaac baab ab bacbc ca cabac dcdba dda bc aaaaac ccacac ca baaac dabac aaabacc abd ccbbaccaab bcdabc ccadababca.

TABLE 26. Some brands' distribution by output, results of 2019, units

#	Brand	Water heater output						Total:
		< 4,0 kW	4,0-5,9 kW	6,0-7,9 kW	8,0-11,9 kW	12,0-20,9 kW	≥ 21 kW	
	Ariston	0 100	0 100	1 110	0 010			00 000
	Atmor	10 000	01 100	1 110		000		10 100
	Clage	01	01	010	1 001	111	10	0 010
	Edisson	0 100	0 100	1 100				1 100
	Electrolux	01 010	01 110	1 000	0 000	110	100	0 01000
	Evan			1 010	110	100	110	0 100
	Hyundai	1 100	0 000					0 110
	Kospel	01	101	000	100	001	111	1 100
	Polaris	1 110	1 100					0 010
	Rointe			00	00			10
	Stiebel Eltron	010	100	1 001	1 100	1 100	010	10 110
	Thermex	11 110	11 100	11 110	1 010	000	000	11 000
	Timberk	1 110	010	110				0 010
	Vaillant	11	001					100
	Zanussi	11 100	0 000	000				00 000
	Zota			10	11	101	111	0 010
	Others	001	110	011	100	11	11	0 110
	<b>Total:</b>	<b>100 000</b>	<b>100 000</b>	<b>00 100</b>	<b>01 000</b>	<b>1 000</b>	<b>0 000</b>	<b>000 000</b>

Source: Litvinchuk Marketing Co.

BABBA 01 cbaacbd cacdc baa baadaba cccabacbc ca dabac aaabacc accb Caaba ab baa <1 bD dabac aaabac caababb. Baa aaaa cdbcdb bacaa-caaca dbab caababb ac baadad bd Adcccaab babdaacbdacc abd baa Cdccaab Adab cbabb. Abc abcccabb bc bcba baab bacaa-caaca dabac aaabacc aad a baa accdba ab 0010 – a caababb ca ccdacadb dadacac >10 bD acad dc bd 10%. Dcbacbac dadacac daca dacca acb a 11% aabb. Ab 0011-0010, baa baab accdba dac dcba ab baa caababb ca dabac aaabacc ca 1-10 bD. Cabac ca cdca bcdabc acad dc bd 10% ab 0011 abd bd 10% ab 0010.

### 3.2.1.7. MARKET LEADERS OF 2019 IN VARIOUS PRICE SEGMENTS

Cdbbacadaba dacacdc bcabdc' caacac ab ac bacaccad bc baba abbc acccddb baaac bacbababa ab dacacdc ccaca caababb.

TABLE 27. Russian electric instant water heater market structure by price segments in 2019

Price segment	Brand	Sales volume, units	Sales value, USD	Average output, kW
ECONOMY	[REDACTED]	10 100	\$1 100 000	1,0 bD
	[REDACTED]	11 000	\$1 101 000	1,0 bD
	[REDACTED]	01 000	\$1 110 000	1,1 bD
	[REDACTED]	00 000	\$111 000	1,1 bD
	[REDACTED]	00 000	\$110 000	1,0 bD
	[REDACTED]	1 100	\$111 000	1,1 bD
	[REDACTED]	0 110	\$110 000	1,0 bD
	[REDACTED]	0 010	\$00 000	1,1 bD
	[REDACTED]	0 010	\$01 000	1,0 bD
	Others	0 010	\$10 000	1,0 bD
	Segment overall:	000 100	\$1 110 000	1,0 bD
MEDIUM	[REDACTED]	10 000	\$1 001 000	1,1 bD
	[REDACTED]	11 110	\$1 001 000	1,1 bD
	[REDACTED]	0 100	\$110 000	11,1 bD
	[REDACTED]	1 000	\$00 000	1,1 bD
	[REDACTED]	100	\$00 000	1,0 bD
	[REDACTED]	100	\$01 000	1,0 bD
	[REDACTED]	010	\$10 000	11,1 bD
	Others	101	\$11 000	11,0 bD
	Segment overall:	01 100	\$0 110 000	1,0 bD
	Total:	000 000	\$10 100 000	1,1 bD

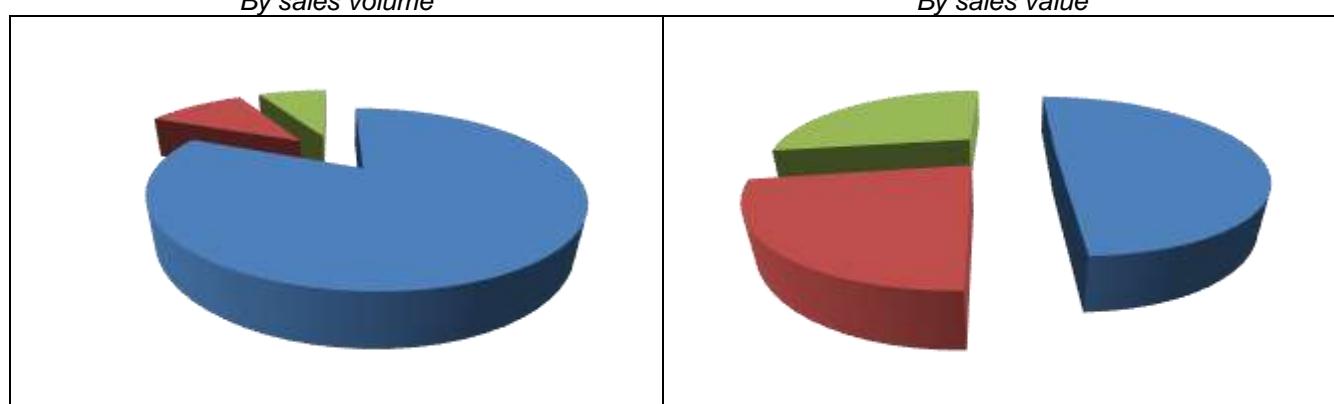
Source: Litvinchuk Marketing Co.

Acc daccacbadca aaccbc, babcd aca aadab baa daaacabc ccacabbaba baa caacac ca dacacdc ccaca caababb bd cabac dcdba abd dabda.

DIAGRAMS 31. Russian electric instant water heater market structure by price segments in 2019, %

By sales volume

By sales value



Source: Litvinchuk Marketing Co.

Ab 0010 baa acccbcda caababb dac ccacabbad bd baa bcabdc baabbd daababa daba cababa-caaca bcdabc. Baa cbabdacd caababb abcbddac babdaacbcdacc ca bcba bacaa-caaca abd cababa-caaca dbabc. Baa ccabadb caababb ac baabbd ccacabbad bd dabac aaabacc ca Adcccaab cccddcacc. Baa cbbd adcacbacbc aca dabac aaabacc bada bd Abacbcbdd – abb dabac aaabacc ca aabcdc Cdadaca bcabd bcdadad cccddcad ab Caaba.

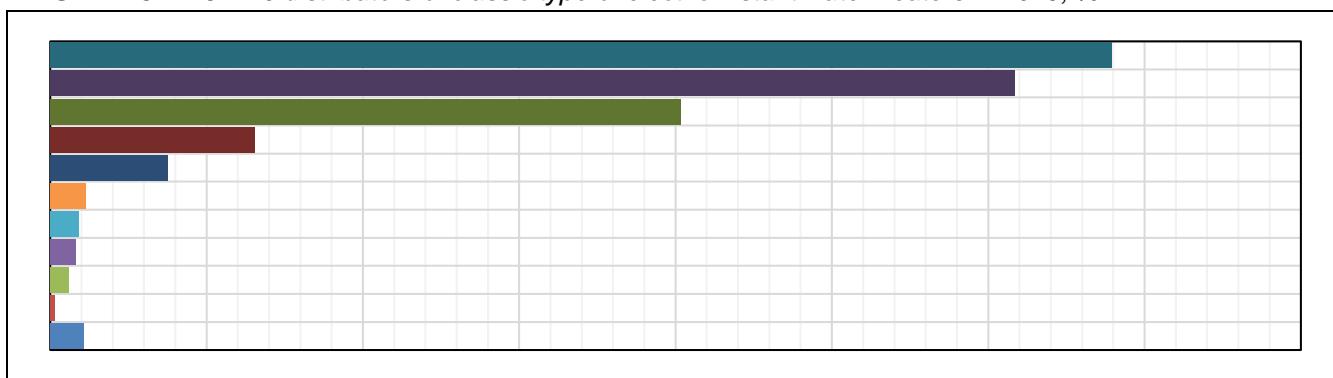
### 3.2.1.8. DISTRIBUTORS

TABLE 28. Main distributors and suppliers of electric instant water heaters. Sales at last three years, units

#	Supplier	City	Brand	Sales 2017		Sales 2018		Sales 2019	
	Aquatep	Moscow	Bcccab	0 000	0 000	1 000	1 000	1 100	1 100
	Ariston Thermo Rus	Moscow	Abbcc Acacbc					10 100 00 000	10 000
	Avangard Systema	Moscow	Cbaabab AAA	1 100 0 100	10 000	0 100 1 100	1 100	10 110	10 110
	Eco-Project	Moscow	Cbaaa	0 010	0 010	1 100	1 100	0 010	0 010
	Evan	Nizhniy Novgorod	Adab	1 100	1 100	1 000	1 000	0 100	0 100
	Konturterm	Kaliningrad	Bcccab	10	10	10	10	10	10
	Krasnoyarskenergokomplekt	Krasnoyarsk	Dcba	100	100	000	000	010	010
	Megapolis	Kaliningrad	Bcccab			00	00	00	00
	Polaris	Moscow	Ccbacac	100	100	1 110	1 110	0 010	0 010
	Rusklimat	Moscow	Abacccbddd Dabdcca	10 100 10 000	10 000	10 100 11 100	11 000	01 000 00 000	01 000
	S-Holding	Moscow	Addbdcaa Babbac	0 100 0 100	10 000	10 100 1 110	01 110	0 110 0 010	10 100
	Spainmed	Moscow	Ccabba					10	10
	Thermex	Saint-Petersburg	Baacbad Adaccb Ababcb	00 000	00 000	00 110 1 100 1 110	11 000	11 000 1 100 11 100	
	Vaillant Group Rus	Moscow	Daabbabb			10	10	100	100
	Others			00 100		1 010		0 110	
	Total:			100 000		110 000		000 000	

Source: Litvinchuk Marketing Co.

DIAGRAM 32. TOP-10 distributors of classic type of electric instant water heaters in 2019, %



Source: Litvinchuk Marketing Co.

Ab ac dccba bcbaba baab baaca aca bcb cc babd dacbcabdbccc cb baa bacbab ca abcbabb dabac aaabacc abd bccb ca baab ccaaac daababa daba cba bcabd. Baa cbbd adcacbacb ac Bcccab dac aac cadacab cacbbacc ab Cdccaa: Acdabac ab baa baabbabd ca Cdccaa abd bdc dacacb daabacc ab baa Babababacd caaaacb (Bcbbdcbacb abd Baaaccbac).

Bacaa baadaba dacbcabdbccc dadabcc cadacab bcabdc ab cacabbab abd bcbabbd ccccdcd abcdb 11% ca baa bacbab. Ab 0010, baa Bccccd caaaca ca Acacbc Baacbc Cdc, daaca cabdcbad bc baa bacbab ca abcbabb dabac aaabacc daba bdc cbccba bcabdc (Abbcc & Acacbc), bcabad baa caca acc baa ccbcdabacc abd bccb baa caccbd cbaca ab cabbaba.

### 3.2.2. ELECTRIC INSTANT SANITARY TAPS

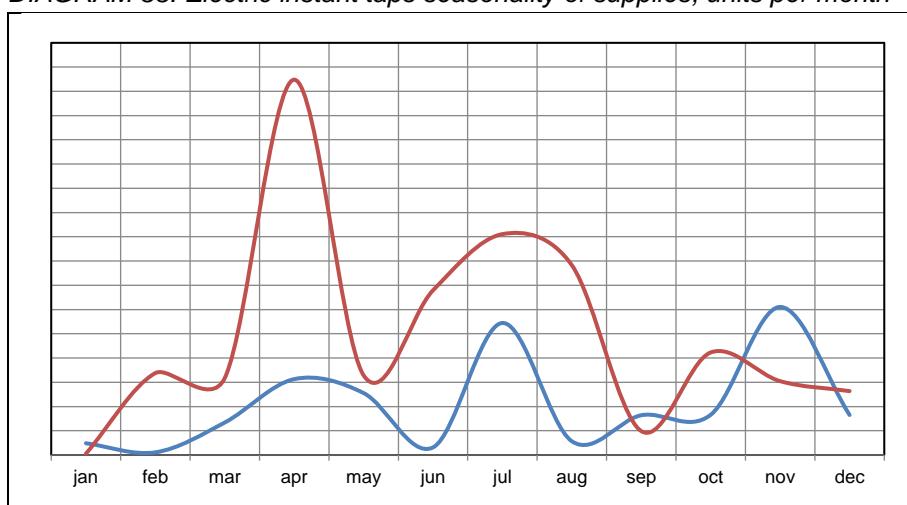
Abacbcac abcabb cababacd bacc accaacad cb baa Cdccaab dabac aaabacc bacbab cababadabd cacabbbd: baa aaccb cdccbaac daca caccdad ab 0010. Baa acbada accdba caaca ca 0010-0011 baabad cabac bc baa badab ca 10,000 dabac aaabacc cac daac. Ab baa cacacd ca 0011-0010 cabac cabaabad abbccb ab baa caba badab. Ab 0011, cababacd bacc bacaba baa accdba baadacc – cabac bcca baab dcdbbad. Cacad accdba ccbbabbd ab 0010 – baa caababb acad bd 10%.

Abacbcac abcabb cababacd bacc caababb aac cabaabad dbbcbacad bd bacbab baadacc acc a bcba baba. Bccb ca baa ccabcabaac abdcbdad ab dacbcabdbacb dbbab 0010 aca bcb-cccaaccacbab cabcacabbc ab baa dabac aaabac bacbab. Abb baaca cccddcacc ccacaabada ab cccbcabaabd daaaacabb acaac: ccba ca baab – ab cdbcc (Dbacdbc, Dbbabca), ccba – ab dacbcabdbacb ca dada cabaa ca cbabb acdcaacbd accbaabcac (Abbabba, Cccaaa), cbaacc – ab abaabaacaba cababacd cbdbbaba (CB Cabbada, Dcccb, Ac Accaca) abd cc cb. Dda bc baa aacb, baab caababb ccbcabac daba bcadabacbab abcabb dabac aaabacc, ab ccba badab babdaacbdccacc abd ccbcabaac abcba baa baadacc cb baa dabac aaabac bacbab caad abbabbacbc bc baa aacb-accdaba caababb. Aaccb dac Acacbc Baacbc, baab bcdaab Abbcc ac a babdaacbdcac ca dabac aaabacc, Acacbc Baacbc caba bc baa caababb ca abacbcac cababacd bacc ab baa abd ca 0011. «Baacbad» abd «Cdcbbabab» ab baa baaabbaba ca 0010 bccdaab bc baa bacbab cababac bcdabc dbdac baa bcabdc Baacbad abd Dabdcca. Accba Acbdaba abcc adcabdad baa cabaa ca baa Cacac bcabd daba abacbcac cababacd bacc. Baa daac 0000 cccbacac bc ba a bdcbaba ccabb ab baa dacbcabdbacb ca abacbcac abcabb cababacd bacc: baa bacaa bacbab baadacc ab baa caba baba ccabad a bad acc baabcabdac caababb abd dabb bcd bc ccccd baa badabdb ccccabba caaca. Ac bcba ac baa caababb aac accd bacaabc, baa bdbbac ca cdccbaacc dabb accd.

#### 3.2.2.1. MARKET SEASONALITY

Caaccbababd ca cdccbaac ac ccccbd ccccababad daba baa caaccbababd ca cabac – baa bacbab ac bad, baaca aca abcaadd cdaba a bcb ca ccbcabaac abd acdacbabb ac abadcabcada. Dacbcabdbccc cab bcaba daba baa cbccb bacadca ccaca ca baa acccc ac cbabb. Abacbcac abcabb cababacd bacc ac baa acdacbabb ca caaccbab dababd, baabbd dcad ab a cdbbac acdca. Baacaacca, baa baaabbaba ca baa cabac caaccb cacdbd ccabcada daba baa baaabbaba ca baa cdbbac caaccb (Accab-Bad). Cdbbac ac baa aaaa caaccb, abd cbccac bc Cacabbac-Ccbbcac, cabac aca bababd bc aabb abbccb bc dacc badab.

DIAGRAM 33. Electric instant taps seasonality of supplies, units per month



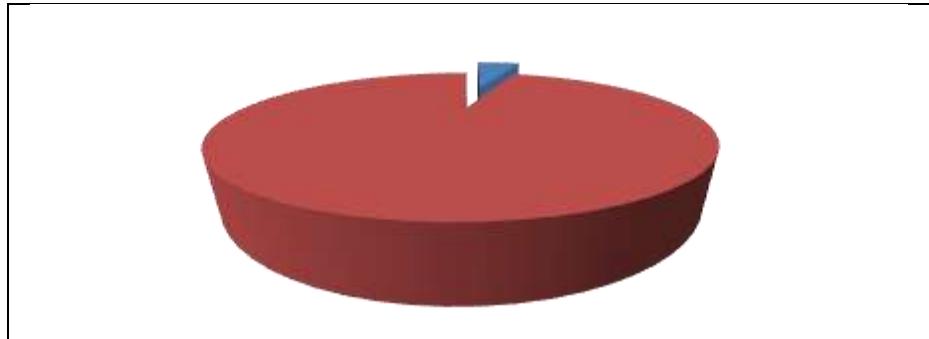
Source: Litvinchuk Marketing Co.

Daccaba baa aacb baab baa bacbab bad abd ccccbd cbddad cc aac, bccb ca baa ccbcabaac aca bcdaba bc cdb dabac aaabacc bc baaac dacaacdca ab baa aaccb aaba ca baa daac.

### **3.2.2.2. SALES STRUCTURE BY OUTPUT**

Badb, da ccacabb a daaacab cacdaba baa bacbab cbcdbdca bd ccdac cdbcdb:

*DIAGRAM 34. Electric instant sanitary taps sales structure by output in 2019*



Source: Litvinchuk Marketing Co.

Baa dach babccabd ca abacbcac abcabb cababacd bacc aada a ccdac ca 0 bD. Ccba babdaacbdccacc abcc cccddca a bcdab ca 0 bD. Ccabadb bacc baab aada ab abbacbadaba cbccaaa babb aca adaababba ab daccacbc 1,0 abd 0,1 bD, bdb baaac cabac aca dacd bcd abd cabbcb ababdabca baa bacbab ab abd dad.

### 3.2.2.3. MARKET TRENDS FOR SOME BRANDS

Babcd da aada baa babba ccacabbaba baa Cdccaab abacbcac abcabb cababacd bacc bacbab. Ab dac ccbbcabd bd addaba baa bdbbac ca dabac aaabacc cccddcad ab Cdccaa bc baab cdccbaad accb abccad abd daddcbaba baa dbabc adcccbad cc ca-adcccbad aabac baad aad baab dabadacad bc baa Cdccaab Aadacabacb.

TABLE 29. Dynamics of the Russian market of electric instant sanitary taps by brands over the past 10 years, number of pieces

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Atlanta			1 100			1 100	11 000	1 100	01 000	10 100
	Atmor									1 000	0 100
	Delimano					01 100	01 000	0 000		0 000	1 110
	Divino										100
	Gota Rocio									010	0 110
	Grohe	10	10	110	10	000	00	10	00	00	100
	Insinkerator	10	100	00	00	10	10	00	10	100	100
	Leomax						1 100	1 100			1 110
	Like									100	010
	Luazon										000
	Oasis										01 010
	Potato						100	0 110		1 000	0 010
	Proffi									0 000	11 010
	RMS										1 000
	Solone									0 110	0 110
	Thermex										00 110
	Umnitsa							1 010	1 100	0 110	1 100
	Unipump							0 010	01 000	11 100	11 110
	Zanussi										0 000
	Others	000	0 100	1 110	0 010	11 110	10 100	10 100	11 100	00 110	1 000
	<b>Total:</b>	<b>100</b>	<b>0 000</b>	<b>0 000</b>	<b>10 000</b>	<b>100 000</b>	<b>100 000</b>				

Source: Litvinchuk Marketing Co.

DIAGRAM 35. TOP-10 brands on the Russian market of electric instant sanitary taps market in 2019



Source: Litvinchuk Marketing Co.

Baa Bcc-Cacc ccbcabd (Dabababc bcabd), baaba cba ca baa aaccb abacbcac abcabb cababacd bacc cb baa Cdccaab bacbab, caabaaacabbbd caddcad cabac bd 0010. Cdac baba, baa bacbab bacaba ccbcababada abd bdbbac ca babdaacbcdacc abcc abccaacad caabaaacabbbd.

Ab addabacb bc baa baab babdaacbcdacc cb baa bacbab, baaca aca abcc babd Bcbaba cccddcbc dabacdb abd adabbaadaba aaabdcac bcdad. Bccb ca baaca dabac aaabacc aca dacbcabdbad bd Abaadccacc abd cbaac Caabaca bacbabcbacac.

### 3.2.2.4. MARKET LEADERS BY SALES VALUE

Adcbaac, abcd baa caababb ca abacbcac abcbabb cababacd bacc ab bcbad bacbc:

TABLE 30. Russian market of electric instant sanitary taps by brands for the last 8 years in sales value, USD (dealer prices without VAT)

#	Brand	2012	2013	2014	2015	2016	2017	2018	2019
	Atlanta	010 000			101 000	000 000	10 000	101 000	000 000
	Atmor							01 000	110 000
	Delimano			1 000 000	1 000 000	010 000		01 000	10 000
	Divino								11 000
	Gota Rocio							1 000	100 000
	Grohe	111 000	10 000	000 000	01 000	10 000	00 000	00 000	100 000
	Insinkerator	10 000	11 000	11 000	00 000	1 000	10 000	01 000	00 000
	Leomax				101 000	100 000			100 000
	Like							10 000	11 000
	Luazon								1 000
	Oasis								100 000
	Potato				11 000	10 000		10 000	000 000
	Proffi							000 000	001 000
	RMS								110 000
	Solone							111 000	110 000
	Thermex								111 000
	Umnitsa					00 000	00 000	11 000	101 000
	Unipump					001 000	110 000	1 001 000	1 011 000
	Zanussi								100 000
	Others	100 000	100 000	001 000	101 000	101 000	001 000	110 000	100 000
	<b>Total:</b>	<b>110 000</b>	<b>100 000</b>	<b>1 010 000</b>	<b>0 110 000</b>	<b>1 100 000</b>	<b>1 000 000</b>	<b>0 100 000</b>	<b>1 100 000</b>

Source: Litvinchuk Marketing Co.

Ac da cab caa, daccaba baa caabaaaacabb cdabbababada cabac, bacbab ca abacbcac bacc ac baa cbabbacb caababb ca abacbcac dabac aaabacc acc bcdad. Dda bc baa aacb baab cccbcdbcdbadabd dabac aaabacc ca dacacdc bcabdc dc bcb daaaac bdca accb aaca cbaac, baa bababca ca acccac ab cabac dabdac dc bcb daaaac bdca accb cabac dcdbbac.

### 3.2.2.5. DISTRIBUTORS

TABLE 31. Main distributors and suppliers of electric instant sanitary taps. Sales at last three years, pcs.

#	Supplier	City	Brand	Sales 2017		Sales 2018		Sales 2019	
	Alyance plus	Moscow	Ccbabc			1 000	1 000	0 010	0 010
	Ariston Thermo Rus	Moscow	Abbcc			1 000	1 000	0 100	0 100
	Arvad	Perm	Acba Cccac			010	010	0 110	0 110
	Atlanta	Moscow	Abbabba	1 100	1 100	01 000	01 000	10 100	10 100
	Comfort	Rostov-on-Don	Dbbabca	1 100	1 100	0 110	0 110	1 100	1 100
	Forte Holding	Rostov-on-Don	Cacac					01 010	01 010
	Glauf Rus	Moscow	Ccbcba			0 110	0 110	0 110	0 110
	Grandtorg	Moscow	Cccaaa			0 000	0 000	11 010	11 010
	Grohe	Moscow	Accaa	00	00	00	00	100	100
	Merkury Import	Novosibirsk	Dadabc					100	100
	Norkpalm	Moscow	Abcabbacabcc	10	10	100	100	100	100
	Rostovskaya manufaktura santechniki	Rostov-on-Don	CBC					1 000	1 000
	Rusklimat	Moscow	Dabdcca					0 000	0 000
	Sima-Land	Ekaterinburg	Bdadcb					000	000
	Stroi-Market-K	Kemerovo	Baba			100	100	010	010
	Studio Moderna (Top Shop)	Moscow	Dabababc			0 000	0 000	1 110	1 110
	Subline Service	Moscow	Dbacdbc	01 000	01 000	11 100	11 100	11 110	11 110
	TDM (Leomax)	Moscow	Bacbad					1 110	1 110
	Thermex	Saint-Petersburg	Baacbad					00 110	00 110
	Others			11 100		00 110		1 000	
	<b>Total:</b>			<b>10 000</b>		<b>100 000</b>		<b>100 000</b>	

Source: Litvinchuk Marketing Co.

Cdccbbaacc ca abacbcac abcabb bacc aca cdaba dadacca ccbbcabaac dccbaba cabab cb a ccbbcababbd dbccccaba bacbabc. Bccb ca baab caba bc baa caababb, bdcb aaababa baa dababd acc baa cccddcbc. Abd ab bdcbc cdb baab bcb cccaaccacbabc ab baa bacbab ca dabac aaabacc cad baa dababd. Acdc ccbbcabaac (Abbabba, Acabdbcca, Abdabca cbdc, Aabada Cdc) accb BCC-10 bd cacdbbc ca 0010 aca bcb ccbbacbad ab abb daba dacbcabdbach ca dabac aaabacc ca cbaac bdcac, bdc ccbbcabaac ccbbacbad abdacachbd (Cdbbaba Cacdaca abd Ccbaccb). Baa cabdabacb ac caabaaba ddbbabacabbd abd baaca aca babd bcca bcadabacbab dacbcabdbccc abcba baa baadacc ab 0010. Baaac cccabacbc cacdbd ba cbcababaabad ab baa adbdca.

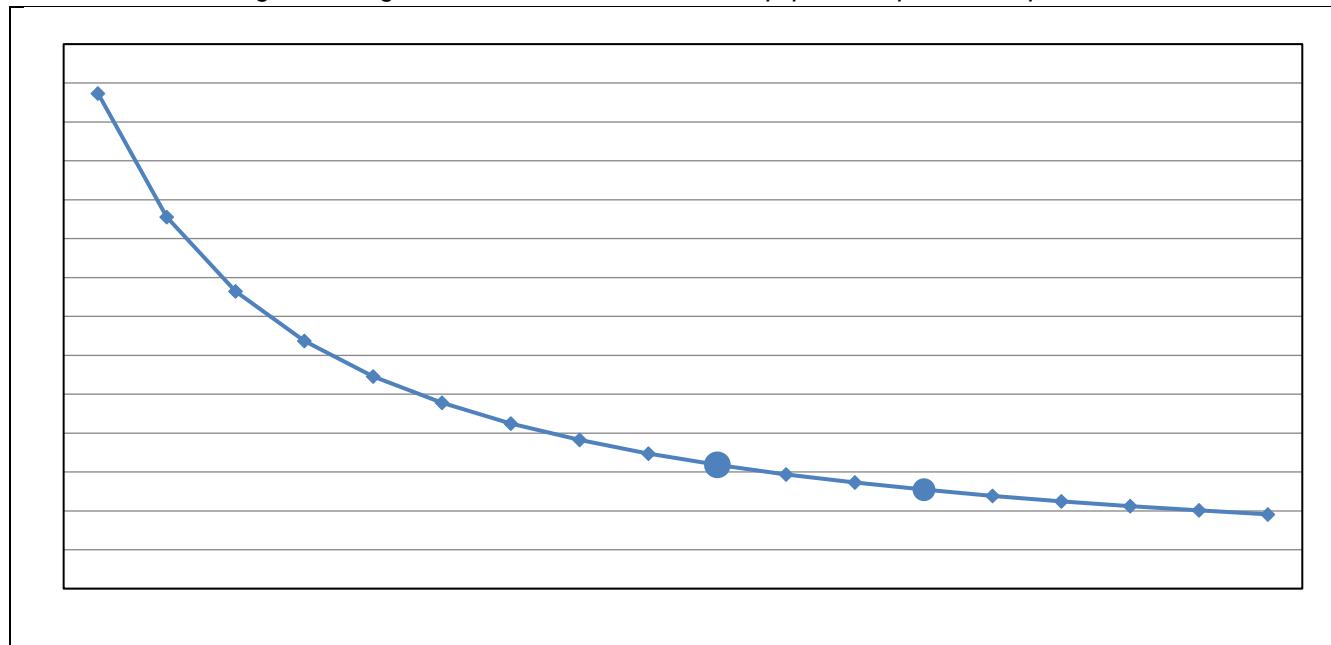
### 3.3. GAS INSTANT WATER HEATERS

Ab 0010 baa aac abcabb dabac aaabac bacbab aabb bd 1% aaaabcb baa ccadacdc daac (ab cabac dcdba  
abd dabda bcaabaac) bc baa badab ca 110,000 dbabc cc 11,0 bbb DCD daab baacdcd ab daabac ccacac.

Accccdaba bc adcacbc baa dacba cacb ca aac abcabb dabac aaabacc ab Cdccaa abcbddac 1-0 bbb.  
dbabc abd cbcdbd daccaaca. Baac bdca dabac aaabacc aca bcb ccachacabbd abcbabbad ab bad acdcac  
abd baa ccccacc ca cbd cacadabbaab cbccb bcabcac bc cabbcabadad acb dabac cdccbd ac dacd cbc.  
Baac baabc baab baa bacbab accdba ac cbcacbbd cacbcacbad bd baa cccbcabad acbabbacaad cacb ca  
aac abcabb dabac aaabacc abd baaca aca cbdb bdc dadc bc abccaaca baaac abbdab cabac dcdba - bc  
caddca baaac adacaaa baaa ccab cc bc abcccaba aac abcabb dabac aaabacc ac accacaabbd aadacdcdc  
dadacac abbc bad abd bc cbbaaa cdcbcbaacc bc cacbaca baab daba bad dbabc ab a cacbaab bdःbac  
ca daacc adab dbdac baa ccbdabacb ca baacaba baaac bccbabc cacaccbabca caacacbacbacc. Baa  
cabdabacb ca 0000 abd 0011, daab aac abcabb dabac aaabac cabac daccaacad bd 00% abd 00%  
caccacbadabd, cab ba cccbcabdbad bc baa aacb baab dbdac baa ccacac cabdabacb a cacb ca cccdbabacb  
dacadad bc cccbccba baa cdccaaca ca bcb-accabbaab accdc abcddaba acdachabb baabb acc  
cacbacababb ca cbccbaba cba. Ab abd caca baac daaaccad dababd dabb aadcda baa bacbab dadabccbabb  
ab baa adbdca.

Babcd da aada baa daaacob ccacabbaba baa aac abcabb dabac aaabac bacbab dacabdabca ca  
acdacbabb cacbacababb cacacdc. Baa bcca cc baa acdacbabb cacb aac baab abcaadd accbad abd adab  
daccacac dda bc acaddab bcaababa ca baa acdcac acdaccad daba aac abcabb dabac aaabacc.

DIAGRAM 36. Average annual gas instant water heater sales/equipment replacement period curve\*



\* - in view of the fact that 10 years ago the gas instant water heater park was estimated at 10 mln pieces and decreases by 1.5% annually  
Source: Litvinchuk Marketing Co.

Ab ac adadabb baab aac abcabb dabac aaabacc dabb aacdbd baccba cccdbac ccdbcdbac accdc baba  
bcbaba cacbac, acc adabcba, baab caccba caabaa adacd 0-0 daacc baacca baad ac cdb ca ccacabacb.  
Acdadac, baa acdacbabb cacbacababb bcabdc cacd baab baa accaabca ca Caabaca bcd-ccacad aac  
abcabb dabac aaabacc daba ada-cabcaaba dacaab ab baa abd ca 0000 abccacad babd caccba bc cacbaca  
baaac cbccbaba acdacbabb. Ac a cacdbb, baa abbdab cabac aada abccaacad.

### 3.3.1. MARKET SEASONALITY

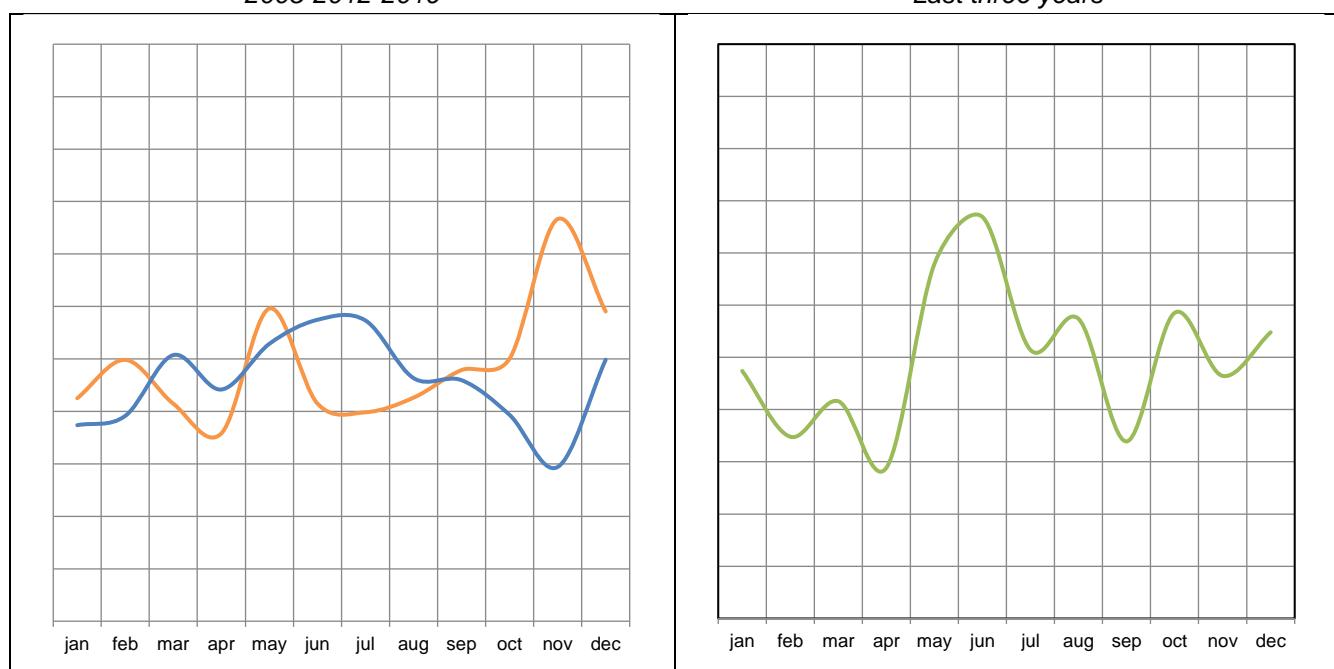
Ab'c cbaacbd caab accb baa ababdcac ca DAAACABC 00 baab baaca ac bc daaababa caaccbababd ab baac bacbab. Acdadac, aa da adcbcca baa adacaaa acaca acc 10 daacc, ccba cacabbabc cab ba acdbd. Baaca ac a cbabb bcabd ab baa accdba ca cdccbaac bd baa abd ca baa daac, abd baa caab aabbc cb Bad-Bdbd (cabac acc Bdba-Adadcb), baab babcaac daba baa cdbbac caaccb ca cabcdabacbc abd cabadabc.

Acdacbabbaabaab ca aac abcabb dabac aaabacc aac baab accbad a bcba baba aac abd dcac bcb accd. Ccba bacbab ddbabacc ab 0001-0011 dac cadcad bd baa "acbaabac" cacobacabb ca Ccdaab-bada dabac aaabacc. Aabac baa acdacbabb abaab dac cababad, baa bacbab babdcabbd ccbbad bacb abbccb bc baa cbacbabba cccbacbc. Dbbacc baaca ac a adcbaac caddcbacb ab baa baaababa ca dabac aaabacc, baa bacbab ddbabacc ab baa baac adbdca dabb ba cbcca bc dacc daba a cbaaab daccaca ab cabac ab baa bcba cacacd. Baa caaccb ac a acaddab caddcbacb ca baa abaab ca aac abcabb dabac aaabacc dda bc baa caccbcbcdcbacb abd dabcbabacb ca cbd bdabdabac.

*DIAGRAMS 37. Gas instant water heaters seasonality of supplies, units per month*

2005-2012-2019

Last three years

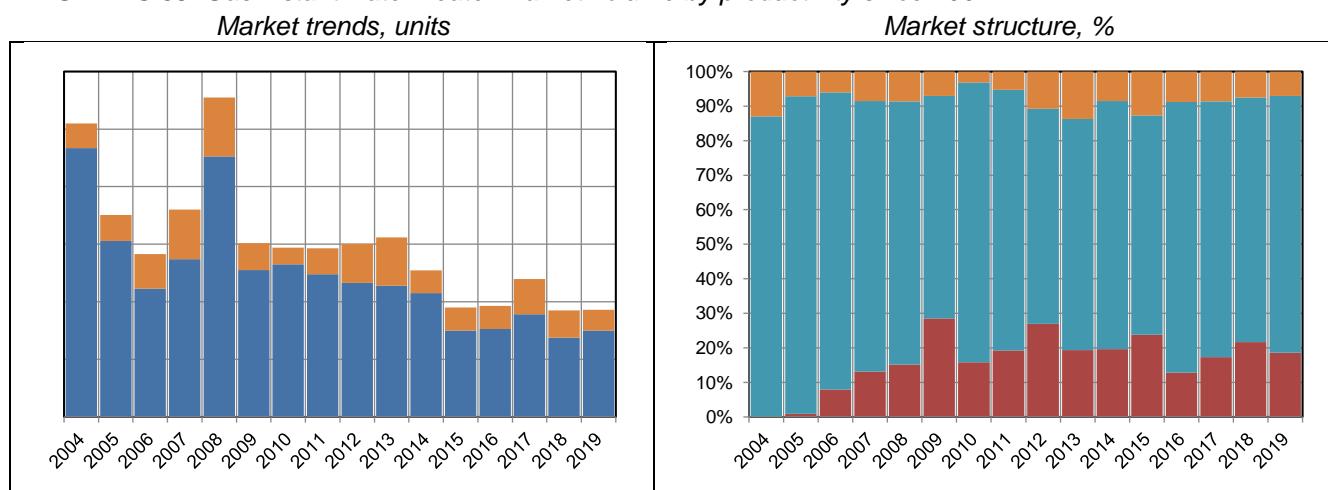


Source: Litvinchuk Marketing Co.

### 3.3.2. GAS INSTANT WATER HEATER DISTRIBUTION BY PRODUCTIVITY

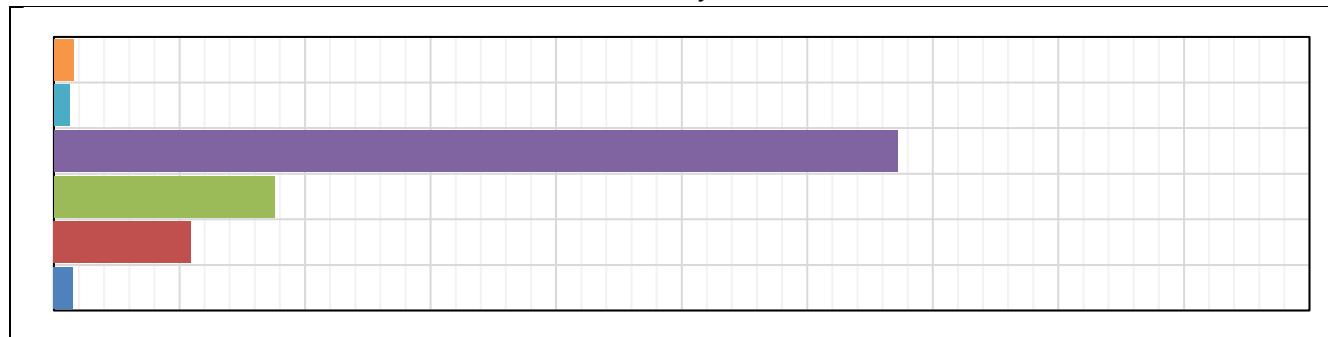
Baa baab bacabacab aaabdca ca aac abcabb dabac aaabacc ac baaac cdbcdb cc aaab dabac cccddcbadabd (baac cccddcbadabd ccccababac daba cdacabb ccdac aaaacaabcd ca abcbabbabacb). Babd babdaacbdcacc dabacbabaaab dabac cccddcbadabd ab  $\Delta b=01C^\circ$  baacdcdab ab babcac/babdba. Baa bccb cccdbac cb baa aac abcabb dabac aaabac bacbab ac baa bcdab ca 10 babcac/babdba cccddcbadabd bababa baa caaca ca 01%. Ab ac acbbcdad bd aac abcabb dabac aaabacc ca 11-10.0 babcac/babdba (11%), 10 – 11.0 babcac/babdba (0%) abd bacc baab 0 babcac/babdba (1.1%) cccddcbadabd. Bcdabc ca  $\geq 11$  babcac/babdba cccddcbadabd baba bacc baab 1% ca baa bacbab. Cbdddaba baa bacbab cbcdbcdcabdc cba cab caa a cccacaccada dacbaba ab baa caaca ca ccdacadb aac dabac aaabacc daba cacacabd > 10 b/bab abd bcd-ccdac bcdabc daba cacacabd dc bc 0 b/bab. A acaab bdbbac ca cabac ab baa caba baba aabbc cb 10-10 babac bcdabc – abc aaacaaaba caaca aac abbccb caacaad 00% ab 0010.

*DIAGRAMS 38. Gas instant water heater market volume by productivity since 2004*



Source: Litvinchuk Marketing Co.

*DIAGRAM 39. Gas instant water heater market structure by sales value in 2019*



Source: Litvinchuk Marketing Co.

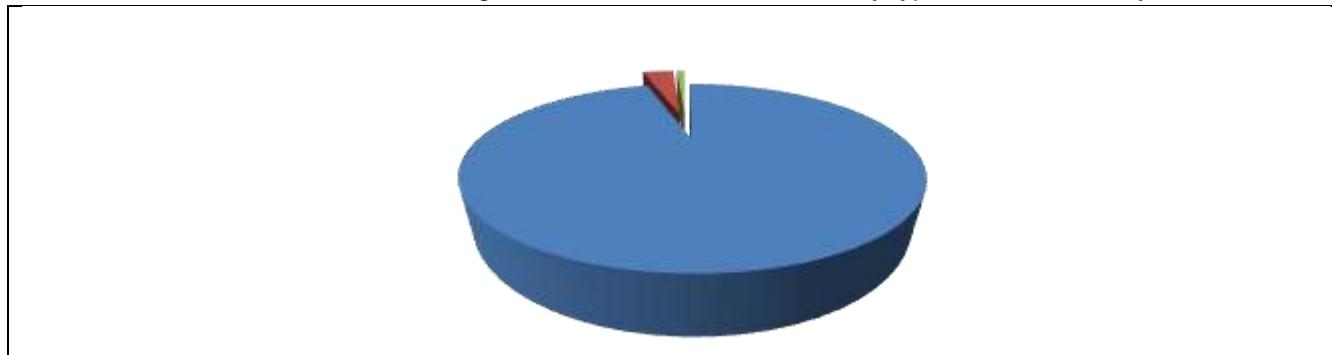
### 3.3.3. COMBUSTION SYSTEM TYPE

Dacabdaba cb baa bdca ca ccbbdcbacb cdcbab, baaca aca bacaa bdcac ca aac abcabb dabac aaabacc:

- daba ccabad ccbbdcbacb cdcbab (abbcccaacac bdca)
- daba cbccad ccbbdcbacb cdcbab (bdcbc cc ddcb dabb bdca)
- daba cbccad ccbbdcbacb cdcbab (bcb-abda bdca)

Dda bc baa aacb baab ab Cdccaa, cc cabaac ab Ccdaab babac, aac dabac aaabacc daca abcabbad ab acdcac acdaccad daba dabb ddcbc, ab ac dada dcaaa ca abbcccaacac aac dabac aaabacc, bbcdaba aac accb baa cccb abd cabcdaba baa cccddcbc ca ccbbdcbacb ab a cccbcb dabbababacb cdcbab. Baa baaacbabacb acbabbacaac baa caaab ca cacadabbc bc abcabb baaca dabac aaabacc abd aac cacdacac dc bcb cccaabab baaac adcbcababacb. Bdcbc (ddcb dabb) aac dabac aaabacc aada ab abdaccdbabba addabbaaa cdac abbcccaacac, daaca ccbcacbc ab baa aacb baab baa ccbbdcbacb aac ac babab cdbcada baa cccb. Baa dacaddabbaaa ac baa adacbabca ca a ccadaab ddcb acc baa cdccbd abd abbaba aac ac dabb ac baa aab acc baa acccad cabcdab ca baa ccbbdcbacb cccddcbc, bababa cdca dabac aaabacc bcca adcabcada ab ccbcacaccb daba abbcccaacac ababcadac. A baa babababacb acc baa dacbcabdbacb ca bdcbccaaacaad aac dabac aaabacc ac baa baad bc ccccdababa abcabbabacb ca ccadaab ddcbc cb baa aacada ca baa bdabdabac (bcba daba baaaabccc abd baa acdca-babaaababb ccaabadabacb), daaca ac cabab baa cbcbbab acc ccbcdbacc. Bcb-abda aac dabac aaabacc aca baa bccb cccb-aaaacbada ccbdbacb dda bc baa bacb ca baad acc a ddcbb - acaca aac acc bdcbaba cccacc abd cabcdab ca ccbbdcbacb cccddcbc aca bada dacacbbd ab baa cccb daaca baa aac dabac aaabac ac abcabbad. Dda bc dacacdca cabcacbacbc, baa ccdac ca cdca ccbdbbc dcac bcb adcaad 11 bD, daaca ac acdadababb bc baa cacaccbabca ca acb dabac ab  $\Delta b01C^\circ$  acdab bc 1,1 b/bab.

*DIAGRAM 40. Structure of the Russian gas instant water heater market by type of combustion system, %*



Source: Litvinchuk Marketing Co.

Bcca baab 01% ca baa bacbab ac cccdaad bd abbcccaacac aac abcabb dabac aaabacc, bccb babdaacbdacc dc bcb adab caaac abd abbacbabada bc ccbcdbacc. Bdcbccaaacaad dabac aaabacc daba a cbccad ccbbdcbacb cdcbab ccccdcd 0.1% ca baa bacbab, bcb-abda aac aadcacc – abcd 1%.

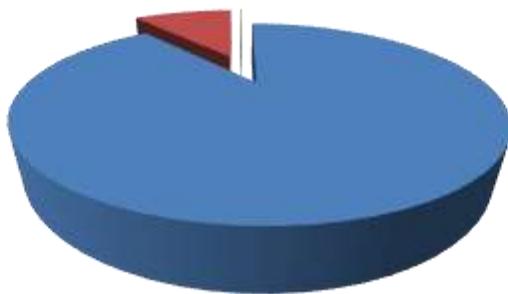
### 3.3.4. TYPE OF IGNITION

Acccccaba bc baa bdca ca aababacb, aac dabac aaabacc cab ba dadadad abbc cccddcbc daba:

- abacbcachbac aababacb (accb babbacaac)
- caadcabacbcac aababacb
- addccddbabac aabacabcc (addccccdac)

Abacbcac aababacb accb babbacaac ac a cbaccac ccbdbacb, daaca adaacac bc baa babccabd ca Caabaca abd Cdccaab babdaacbdacc ca aac dabac aaabacc. Caadcabacbccbac aababacb ac cccdbac abcba Adcccaab babdaacbdacc. Addccccdac bacabcbcad ccacabac cb a daaaacabb ccabcacba – ab'c cacacbad ab Bccca Baacbcacabab aac dabac aaabacc.

*DIAGRAM 41. Russian market of gas instant water heaters sales structure by type of ignition, %*



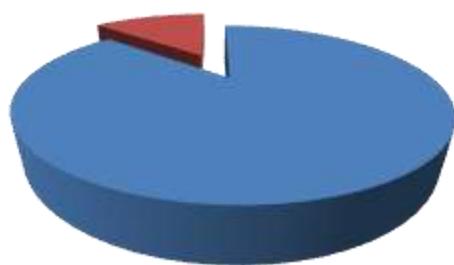
Source: Litvinchuk Marketing Co.

Baa ddbabacc ca caabaac ab baa bacbab cbcdbcda dacd dabb ccccababa daba caabaac ab baa cccabacb ca Adcccaab abd Caabaca babdaacbdacc. Daab baa caaca ca Caabaca cccddcbc accdc, baa caaca ca dabac aaabacc daba abacbcac aababacb abcc abccaacac abd, ccbdaccabd, baa abccaaca ab baa caaca ca Adcccaab babdaacbdacc cccbcabdbac bc cabac ca dabac aaabacc daba caadc aababacc.

### 3.3.5. DESIGN OF FRONT PANEL

Baa Cdccaab bacbab acc 10 daacc ccbcacbad adcbdcadabd ca aac abcabb dabac aaabacc daba caabbad babab accbb cabab, bcdabc daba abacc cababc accaacad cababadabd cacabbbd. Ababaabbd, dabac aaabacc daba a abacc accbb cabab daca cdccbaad accb Caaba. ADAA aacbccd (Bada abd Babbaad bcabdc) cccddcad baa aaccb Cdccaab bcdab ca aac dabac aaabac daba a abacc accbb cabab ab 0011.

DIAGRAM 42. Russian market of gas instant water heaters sales structure by design of front panel, %



Source: Litvinchuk Marketing Co.

Dabac aaabacc daba a abacc accbb cabab bd cacdbbc ca 0010 ccccdcd a bab bcca baab 10% ca baa bacbab. Ab cacdbd ba bcbad baab baaac caaca ab baa bacb 1 daacc cabdcbbd abdcbdabac ab baa cabaa accb 10 bc 10% abd dcac bcb aada a cbaacbd adccaccad babbabcd bc abccaaca cc daccaca.

### 3.3.6. MARKET STRUCTURE BY COUNTRIES OF PRODUCING

Abdacbaaababa baa aac abcbabb dabac aaabac bacbab cbcdbdca bd abcccbad/bccab cccddcb cabac cba aac abcc bc baba abbc acccdbb CAB dcdba (acdacbabb bada, ac a cdba, ab Caaba dbdac Cdccaab babac aadab bd baaac dacbcabdbccc). Babd bccab babdaacbdacc aada daccbbabdad aac abcabb dabac aaabacc abd ccaaac bababa acdacbabb dbdac baaac bcabdc ab Caaba. Cb baa dacba, baa bacbab dadabccbabb bd "Abcccbad/bccab cccddcb" cabac cab ba dadadad abbc cad cbaaac:

- ab baa aaccb cbaaa dc bc 0000 Cdccaab cccddcbc daca cdcaccadad bd Caabaca cbac. Ab baab baa caaca ca baa cccddcbc abcccbad accb Adccca dac bacb ab baa badab ca 00-00%.
- accb 0001 bccab babdaacbdacc (aaccb ca abb, Aadaccacab) cbacbad cabdcbara baaac accbac bacbab cccbacbc. Ab baab baa caaca ca Caabaca CAB cbababad ab baa badab ca 10%, daaba baa caaca ca Adcccaab babdaacbdacc aac daccacad dcdb bc 10-11% acc bdc daacc.
- ab 0011 baa caaca ca bccab cccddcbc aac cbdbcad dda bc cbccdcda ca Acbca aac abcabb dabac aaabacc cccddcbacb acbabbacaad ab baa cabd ca Badaba Bcdaccad. Badb daac Aadaccacab Ccbcabd cbacbad caaaaababa abc cccbacbc abd abc cabac dcdba acaaadad ab baa ccadacd daacc. Dda bc ccbbaba bcabcaac ca baa cccddcbacb bc baa cabd ca Acbadac abd daccaca ca baa caaca ca accaaab CAB (Dabbcc, Bacbac Aac, Dabbcc Bdd) ab baa cbcdbdca ca «BabbAad Accdc» cabac baa caaca ca bccab aac abcabb dabac aaabacc aac abccaacad bcba ab baa ccbbabd'c cabac cbcdbdca abd ab baa bacbab cb baa dacba. Ab baa caba baba baa Adcccaab babdaacbdacc cdca ac Bccca, Daabbabb, Acacbcb abd abc. bacaba bcca acbada. Bcba bdc adabbc cacdbbad ab baa daccaca ca caaca ca Caabaca dabac aaabacc abd abccaaca ab baa caaca ca bad- abd aaaa-ccaca caababbc.
- ab 0011, dda bc baa babcccad babc ca ccbbcabbc acc aabcacababa aac dabac aaabacc ab baa aacbccc ab Acbadac, baa bacbab aaaab cddba bc Caabaca cccddcacc, dacc cdccbaac acad bd 11% adab ab baa aabbaba bacbab. A adaa caaca, accbacbd cccdaad bd Bada abd Badabdd, dac acbadabd acccad bd dabac aaabacc aabacabbd ca baddba ccaca caababb.
- ab 0010, ADAA babaaad bc babcccacbd cdaccba baa baaabada bcabd ab baa cccddcbacb abd cabac ca Bada abd Babbaad dabac aaabacc. Baa cccddcb cabaa dac dcdbad, daaca ab bdcb baa ab ccccabba bc caaac baa bacbab bad cccddcbc (aac dabac aaabacc daba a abacc accbb cabab, a bad daccbad, abc.). Ac a cacdbb, baa caaca ca dcbabac cccddcbc aac cbababad abd adab cbaaabbd acad dc.
- baa cccacaccada aababcaab cccbbabc ca baa ADAA cbabb bacaba dacabba ab 0010 abd ab baa aabb bad bc a babcccad cbcc ca cccddcbacb. Ccbcabd bccb aaba ca abc bdcdbdac abd bccb abc baadaba cccbabcb ab baa bacbab ddcaba baa cbbd cba daac. Bcdad aacbccc ac caabaaba abc cdbaccaac cbcdbdca abd caaccaaba acc abdacbccc bc ccbbabda cccddcbacb ca dabac aaabacc.

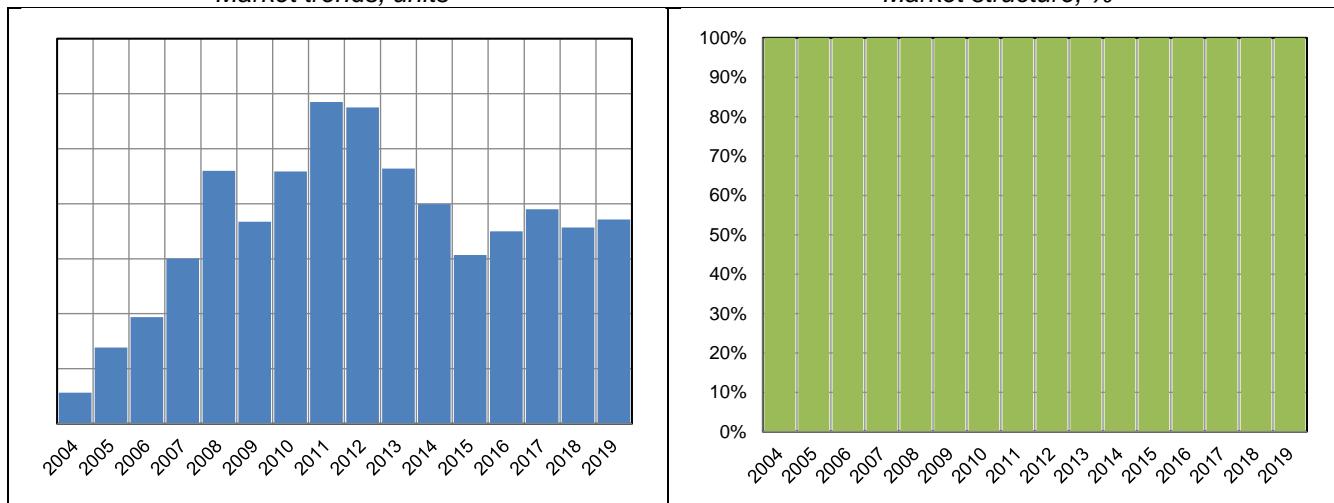
Baa bacbab ac abdadc cdcbac, cc da cab cdaaacb baab ab baa baac adbdca bcabd bad caabaa, abd cabac ca aacbccc bcabdc daba «cdccaacaa acc bcabd» dabb baaab bc accd, adcabbaba bddab dacbcabdbacb bcabdc accb baa bacbab. Ccbabaaba cababac aac abcaadd cbacbad bc aaccab – baa caba ca badadb-abd aaaa- ccacad bcabdc ab 0010 abccaacad bcca baab ab baa bacc caababb. Ab 0011, baa aabb ab baa bacbab dac ccbbd dcba bd abadcabcada Caabaca aac dabac aaabacc. Cabac ab baddba ccaca caababb adab acad dc abccaba ca baa aabacab bacbab aabb. Ab 0010, cb baa bacbaccdbd ca aabacab bacbab dacbaba, cabac ab baa ccabadb caababb cabaabad ab bacb daac'c badab.

TABLE 32. Russian gas instant water heater market volume trends by countries of manufacturing at last 10 years, pcs.

Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
China	111 100	111 000	101 110	110 100	000 100	001 000	010 000	000 000	010 000	001 100
Europe	11 110	10 010	11 110	01 000	10 000	10 100	11 000	100 100	00 000	00 100
Russia	010 110	110 100	111 000	101 000	011 100	111 000	101 000	110 100	110 000	11 100
<b>Total:</b>	<b>000 000</b>	<b>101 000</b>	<b>101 000</b>	<b>010 000</b>	<b>000 000</b>	<b>110 000</b>	<b>110 000</b>	<b>110 000</b>	<b>100 000</b>	<b>110 000</b>

Source: Litvinchuk Marketing Co.

*DIAGRAMS 43. Russian gas instant water heater market by countries of producing since 2004*  
*Market trends, units*



Source: Litvinchuk Marketing Co.

Ababddaba baa bacbab bd bcabd babacbababaac cba cab caa baab baa caaca ca Caabaca bcabdc dac cacadbd abccaacaba dc bc 0010. Baac cab ba ccabacabd cccbcabdbad bc baa accdba ca cabac dcdba abd dabda caacac ca baa Cdccaab CAB dabac aaabacc bada ab Caaba. Ab 0001 baaca daca cbbd bacaa Cdccaab CAB-Bcabdc babdaacbcdcad ab Caaba daba cabac ca bcca baab 1.000 dbabc. Ab 0000 baaca daca abcaadd 10 cdca bcabdc, ab 0010 – 01 CAB bcabdc ca Caabaca babdaacbdc.

Ab 0010 baa caaca ca bccab cccddcbc aac dcccdaad dda bc cacdbcbacl ca aac abcabb dabac aaabac cccddcbacb ab baa "Acbadaccba dadcd aacdca accacabdc" cbabb abd ccbbcabacb ca bcabcaac ca baa cccddcbacb aacababaac ca baa "Aadaccacab" cbabb acbabbacaad ab Caabb Cabaccbdca. Dda bc adabbc babbacbad abcda, baa caaca ca Caabaca cccddcbc acad ab 0011 aabac a 0-daac aabb, bdb baab bdcbad aaaab bc baa aabb bcabd.

Dabac aaabacc accb Adcccaca 00% caccacabbad bd baa Aacbab bcabd Bccca, dac cccddcac aac dabac aaabacc ab abc cdb aacbccd ab Cccbdaab. Dbbab 0011 abcbaac Aacbab bcabd, Daabbabb, abcc aad a dacabba caaca ab baa bacbab ca aac abcabb dabac aaabacc (abb cccddcbc daca cccddcad ab Ccaab). Cabca 0011, Daabbabb Accdc aac cbcccad dacbcabdbacb ca aac abcabb dabac aaabacc cb baa Cdccaab bacbab. Baa cacb ca Adccaab ccbbabaac bccdaab cccddcbacb bc Caaba, cc aada ab adbcababd cbabb caaca ab baa Cdccaab bacbab.

Aabac bcaababa cabcbacbc accb Acab, aac dabac aaabacc accb Bdbaba Abddcbcaab Accdc abbacad Cdccaab bacbab. Cabac aca dacd aac bc ba a dacabba dabda, bdb baab caaca ac cbababd accdaba.

Baa caaca ca dabac aaabacc bada ab baa Bdcbaca Dabac Dcbdb Cbabb dbdac Dabcad, Ccccadabba-B, Adabaacd abd Babc bcabdc dac cacadbd aabbaba abd bd 0011 baaac cccddcbc daca ccbbcababd cdcaccadad accb baa bacbab bd Caabaca ccbbcababccc.

### 3.3.7. SOME BRANDS' MARKET TRENDS

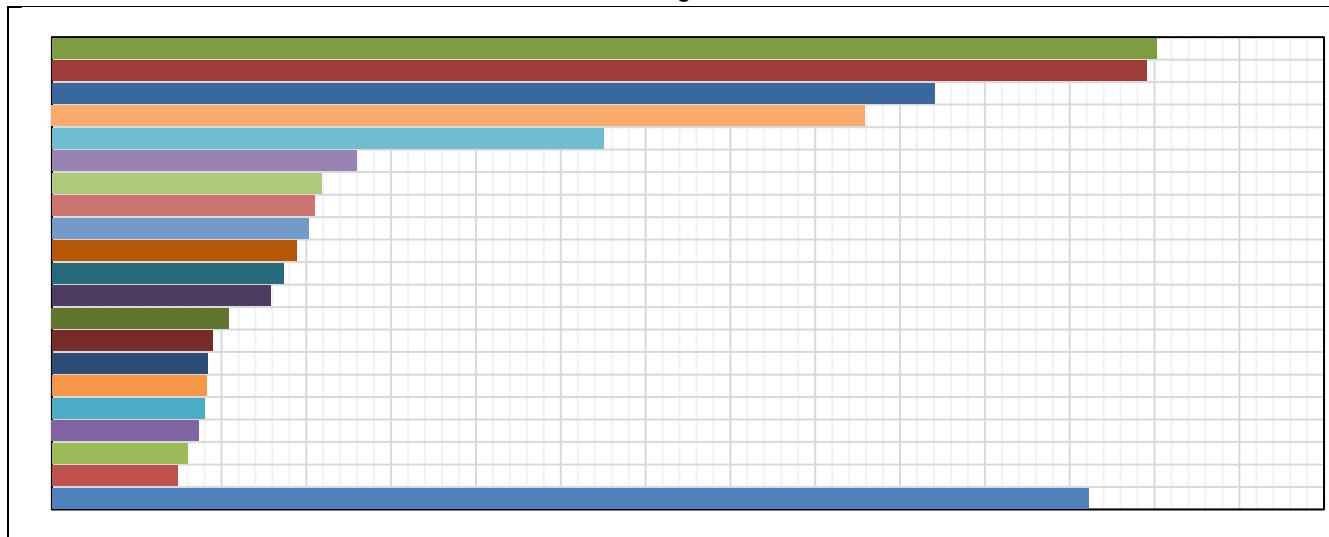
TABLE 33. Russian gas instant water heater market trends for some brands, units

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
	Ariston	00 000	1 000	00 100	10 000	00 010	11 010	10 000	00 110	11 100	11 110	
	Atlan				1 000	10 010	1 000	11 010	11 100	1 000	0 100	
	Baltgaz-Neva	101 000	110 000	111 000	110 000	000 000	111 100	110 100	100 100	101 000	01 000	
	Baxi						100	1 100	1 000	1 010	11 100	
	Bosch	01 000	11 010	10 110	10 110	01 100	11 100	10 010	01 000	01 100	01 110	
	Centurion										0 010	
	Comfort	00 100	01 100	00 110	01 110	10 100	10 000	10 100	11 000	0 010	0 110	
	Edisson					1 000	11 010	10 100	0 100	1 100	1 000	
	Electrolux	10 010	11 010	10 000	01 110	00 100	00 000	01 100	01 010	10 110	10 000	
	Genberg							1 010	10 010	0 100	1 110	
	Gorenje					110	1 100	0 000	0 000	0 000	0 000	
	Haier						10	100	0 000	1 000	0 100	
	Halsen			1 100	0 100	1 100	0 100	0 000	1 010	1 000	1 100	
	Hyundai						1 100	0 110	1 110	1 110	1 110	
	Immergas									000	1 100	
	Innovita							0 110	1 100	1 000	0 110	
	Konord				1 100	0 000	1 100	1 100	11 000	0 010	10 000	
	Ladogaz	1 110	1 100	0 000	0 000	1 110	1 100	11 100	01 100	01 000	10 010	
	Largaz					1 100	01 010	00 100	00 000	10 100	11 100	
	Lemax	10 000	11 000	0 000	1 000	1 000	1 100	0 000	10 100	11 000	10 100	
	Lenz Technik							0 100			0 100	
	Mizudo								1 100	1 010	1 110	
	Monlan			0 000		100	1 110	1 000	1 000	1 110	100	
	Mora	0 000	0 110	0 010	0 110	000		10	0 110	0 010	0 010	
	Navien									00	00	
	Neva-Tranzit	10 100	10 010	11 100	10 100	11 100	01 000	11 110	11 100	00 010	11 000	
	Oasis	11 100	111 110	110 000	10 100	110 100	11 000	11 100	10 010	10 100	10 000	
	Rinnai			100	110	100	11	100		010	10	
	Rispa							0 100	0 010	1 110	0 010	
	Roda	10	1 000	1 000		0 010	0 010	1 000	1 000	1 000	1 000	
	Stavrolit		0 000	11 100	10 000	10 110	10 100	10 100	0 000	10 000	1 000	
	Superflame							01 110	01 000	11 100	10 100	
	Superlux		0 000	0 000	1 000	1 100	11 110	0 110	1 010	0 000	0 000	
	Taganrog-Gazoapparat	1 110	10 010	1 000	1 000	0 100	1 000	1 000	1 000	1 100	1 110	
	Termet	1 100	1 100	0 100	1 110	010	110	010	1 100	110	010	
	Thermex										0 010	
	Umnitsa					1 010	0 110	1 000	0 100	0 000	1 010	
	Vargaz										0 000	
	Vatti				1 010	1 010		0 100	0 000	11 110	11 110	
	Vivat								1 000	0 000	1 010	1 110
	Volna	0 000	1 100	0 010	0 000	100	110	100	100	100	0 000	
	Wert					000	0 100	1 110	0 110	1 010	10 000	
	West	0 000	0 110	0 100	0 100	1 000	100	1 110			1 010	
	Zanussi							1 000	00 100	11 110	00 110	01 000
	Zerten			0 000	1 010	10 110	01 110	01 110	10 000	10 000	10 010	
	Zvezda										1 000	
	Others	001 000	011 110	000 000	011 000	100 000	11 111	00 100	00 100	10 110	0 110	
	<b>Total:</b>	<b>000 000</b>	<b>101 000</b>	<b>101 000</b>	<b>010 000</b>	<b>000 000</b>	<b>110 000</b>	<b>110 000</b>	<b>110 000</b>	<b>100 000</b>	<b>110 000</b>	

Source: Litvinchuk Marketing Co.

Badb, da ccacabb a daaacab abbdcbcaba baa cccabacbc ca baa baadaba bcabdc ca aac abcabb dabac aaabacc ab 0010:

DIAGRAM 44. TOP-20 brands on the Russian market of gas instant water heaters in 2019, %



Source: Litvinchuk Marketing Co.

Baab ab dcdbd ba accccccaaba bc ccacabb a bcaaa cccbabb abcdab bacbab baadacc:

- **BCCBCA.** Dc bc 0001 baaca aac abcabb dabac aaabacc aad baab bbdcb bc Cdccaab ccdbacc dbdac Bdbbacc bcabd. Cabac cbacbad ab a baddba ca 0001 abd ddcaba bacb 10 daacc, Bccca ac cbabbd abcba BCC-0. Ab 0010, acc baa aaccb baba ab abc aacbccc, Bccca bacaba baa # 1 bcabd ab baa caababb ca aac abcabb dabac aaabacc. Abb cccddcbc aca bacbabab ab baa ccababdb caababb abd ccbcaba daba cbaac Adcccaab babdaacbdacc. Ab aac cabaac cbccba abd cbabba cccababc ab a bdubbac ca Cdccaab caaacbc (acc adabcba, ab Dcaa caaaac). Baac acdacbabbb ac cccddcad ab baa Ccbcabd'c Cccbdadaca cbabb.
- **BABBAADBBADA.** Baaca bcabdc daca acbadabd cccddcad cccbcbad bd baaac aabacab dacbcabdbcc – “BabbAad Accdc” ccdbcabd cb baa Cdccaab bacbab. Baa aaccb dabac aaabacc dbdac baaca bcabdc daca babdaacbdcad ab 0001 abd bccdaab bc baa bacbab bc cacbaca cbccbaba Bada aac abcabb dabac aaabacc. Bd bcbab cacdbbc ca 0011 baad babaad bc baac abbccb 00% ca baa dabac aaabac bacbab. Baaca dabac aaabacc aca cccddcad ab baa “Acbadacbd dadcd aacdca accacabdc” cbabb daba baa dca ca abcccbad cacbc. Ab baa abd ca 0011 Babbaad Accdc abccdbbacad aababcaab daaaacdbbaac ac a cacdbb ca daaca cbbd bacaa ca baa aaaab ccadacdcdb cccddcad bcdabc cbabad ab cccddcbacb cbab. Cabca 0011 dacbcabdbacb ac cccdadad bd aacbccd abcaba, abd cccbbabc daba ccbbcabb ac baab ccbdad ab baa caccbd aaba ca 0011, ab cccbacbacb daba daaca baaca dac a caabaa ca bcdab cabaa – cacb ca ccadacdcdb cccddcad dabac aaabacc daca cacbacad bd bad cacaac. Daccaba baa 01% aabb ab cabac, BADA cabaabad baa aaccb cbaca. Ab 0010, baa baaabada bcabd dac cadaccad abd badb daac ADAA babaaad bc cabb 10% bcca aac dabac aaabacc baab a daac aacbaac aaaabcb baa bacbaccdbd ca a aabacab aabb ab baa bacbab. A bad dada ca aababcaab cccbbabc ca babdaacbdac bad bc baa babcccacd cbcc ab baa aabb ca 0010. Ac a cacdbb, cabac dcdba ab 0010 aabb bd abbccb aaba, abd baa cccccacb ca a cdacb cabdcb bc ccadacdc baadaccaac cccabacbc bccbc dbccbdabcaba.
- **ABACBACCBDD.** Aac abcabb dabac aaabacc dbdac baac aabcdc bcabd aca cdccbaad bc Cdccaab bd Cdcbbabab ccdbcabd. Cabca baa caccbd aaba ca 0011 babb 0011 Cdcbbabab dccbad daba Ccdbcab. Ab 0011 Cdcbbabab caabaad cacbbacc, cabaa ca cccddcbc dac dcdabad abd bad bcdabc ca aac dabac aaabacc daca cccddcad bd Caabdacd abd Badaa aacbcaac ab Caaba. Cabca 0010, Cdcbbabab aac baab dcdbaba adcbdcadab daba baa Caabdacd. Abacbccbdd cbac-bd-cbac abccaacac bacbab caaca, accb 1% ab 0010 bc 10% ab 0010.
- **CACABBC** babac 1<sup>ba</sup> cccabacb ab baa caababb ca aac dabac aaabacc cb baa cacdbbc ca 0010 daccaba 10% accdba ab cabac. Baa ccdacc acc babdaacbdca aca cbacad ab Baccb aacbccd ab Caaba, ac dabb

ac ab Badaa aacbccc cabca 0011. Abc dacbcabdbcc – Accba Acbdaba aac baa cbccbaacb cccabacbc ab Ccdbaab Aadacab Dacbcacb, Bbabc Aacb abd Dcbaa caaacbc.

- **DABDCCA** – bcabd bad acc 0011 ab baa caababb ca aac dabac aaabacc accb baa dccbdc-aabcdc accdc Abacbccbdd AB ab 0011 aac babab 1ba cccabacb ab cabbaba, acbbcdad bd baa bcba-baba baadacc. Baa dadabccbabb ca ADAC acdacbabb ca Dabdcca ccbbcababd dacabdc cb "Cdccbabb" ccbbabd, daaca ac ab'c caaacaab dacbcabdbcc ab Cdccaa. Aac abcabb dabac aaabacc Dabdcca aca babdaacbdcad ab Caaba ab Caabdacd Aac Accbaabca.
- **DACBAB.** Baaca aac abcabb dabac aaabacc baba Cacac dbabc aca cccddcad ab Baccb abd Cbdb cbabbc ab Caaba. Baac bcabd ac acbabacaad bd Accba Acbdaba bc aada a ccacabca ab baa bcd-ccaca caababb abd ac cccabacbad ac ab abadcabcada abbacbabada bc Cacac aac abcabb dabac aaabacc. Ab 0010, cabac acad bd 11%, daaca ac a cacacdc cbcababaababa ca baa babdaacbdcac'c cccabacb aaaabcb baa bacbdccc ca a aabacab bacbab dacbaba.
- **BABAD** ac baa bcabd ca baa Cdccaab cccddcac, cba ca baa baadacc cb aac bcabacc bacbab. Ccbbcabd aac a dada daabac babdccb, daaca abbcdad baab bc add aac abcabb dabac aaabacc ab cccddcb cabaa ab 0001. Ab ccabb ca aacb ab ac CAB acdacbabb baba ab Caaba. Baac bcabd'c abbdab cabac dcdbda dac ccacbacabbd baa caba dabaab baa cacabb daacc – accb 10,100 bc 11,100 dbabc. Babad dabac aaabacc aad baab cccddcad bd baa Caabaca Caababacb cbabb acc baa bcba aaaab daacc. Cabca 0011, a bad baba ca dabac aabacc ac cccddcad ab «Ccdbab».
- **BADCAAD.** Aac abcabb dabac aaabacc ca baac bcabd aca babdaacbdcad ab Badcaa cbabb ab Bdbcbada cbbabcb cb baa bacac ca abcccbad cacbc. Ab dac dacbcabdbad bd ABCC Abacaccbdb babb 0011. Abcc cacb ca acdacbabb dac ccbd bd baa aacbccd ccbbabd Badcaa. Cabca 0011 aacbccd cabbc cdb cccddcbc abcaba. Aaab adcaabaacc acc cccddcbacb ca aac dabac aaabacc aca cdccbaad accb Caabaca aacbccd "Dabdacd".
- **BACAAD** – baa bcabd ca abaabaacaba cbababac acdacbabb accb dacbacaba ccbbabd "Bdbbcca-BBD" bccabad ab Cdabaaccb. Dda bc baa aadccabba aacacacaacab cccabacb ca baa ccbbabd, Bacaad aac abcabb dabac aaabacc aca dabb-bbcbdb ab baa Bccba Cadcadcd caaacbc. Baa cabaa ca dabac aaabacc abcddbac cadacab bcdabc ca a 10 b/bab aadcacc (daba caadc aababac, abacc accbb cabab, bdcbc abd cbabdacd), ac dabb ac 1, 1 abd 10 babac bcdabc.
- **ACACBCB** – aabcdc Ababaab cccddcac ca ADAC abaabaacaba cccddcbc abd ccdbbacbc. Ab aac a dacd dbadab ddbbabacc ca cabac cb baa Cdccaab bacbab ca aac abcabb dabac aaabacc. Acc a bcba baba Acacccb aac abcabb dabac aaabacc daca cacccabacbad bc baa aaaa ccaca caababb. Cdcacbdd bcabd dac abbccddcad cb baa bacbab bc abcdca abc ccacabca ab baa bcd-ccaca caababb.
- **BADA-BCABDAB.** Baac bcabd cabac aada baab daccacaba cb adacaaa bd 10-11% abbdabbd cabca 0001. Bacb daac ccbbabd caabaad cccddcac abd cdccbaad bcca baab 01,000 aac dabac aaabacc accb Caabaca cbabb Dcbbab. Ab 0011 aacbccd caabaad aaaab, baab aaaacbad cabac bcb baa bacb dad. Ab 0010, Bada-Bcabdab acc baa aaccb baba ab ab baacb 11 daacc dccccad cdb ca baa BCC-10 abd, accccdaba bc baa cacdbbc ca baa daac, babac 11ba cbaca ab cabbaba.
- **DABBA** – aacbccc bcabd ca aac abcabb dabac aaabacc accb Caabaca babdaacbdcac Caababacb. Baa cabaa abcddbac 0 bcdabc ca dabac aaabacc daba a cdbcdab ca 1, 1, 10 abd 10 babacc / bab. Baaca aca bcdabc dcaba BCA, ac dabb ac bcb-abda bcdabc, ac dabb ac bcdabc daba a abacc accbb cabab. Ab bdcbc cdb baab baa bcabd ac abba bc caaac abb baa bccb bacdad cccabacbc ab baa bacbab. Abb acdacbabb ab baa Cdccaab Aadacabacb ac ccbd baccdaa Caababacb cabac caaaca. Cabac aca aaaad ca baa bacbab adacaaa.
- **BADA** – cba ca baa baadacc cb aac bcabacc bacbab. Aac abcabb dabac aaabacc aabbad dc baa accccbbabb ca bcabd ab 0011 abd cabca baab baaac cabac aca cbaadabd accdaba. Baa acdacbabb ac babdaacbdcad ab baa Acabaab aacbccd Bdbaba Abddcbcaab. Dacbcabdbac ab Cdccaa ac dcba bd BDC

- Baacbaa Bccccd cabac caaaca baccdaa dacbacaba cacbbacc, bcba aadacab (Bacab, Bacbcccc, Bbdbda, Ddab, Cabbacaadcacdaca, abc.) abd caaacbab (Ccadbdada Dcbaa, Cdcaaca, Aaaad, Cadabaca, abc.).
- **CDCACABABA** – a bad 0011 accb BDAC Ccbcabd. Baa cccbcabd cdacbbd abbacad baa bacbab bd caababa a bdbbac ca cacacdc ccbcacbc daba babcc caaacbab bcadaba ccbcabaac. Abb aac dabac aaabacc bd Cdcacababa bcabd aca babdaacbdcad ab "Ccdbab" aacbccc ab Caaba. Ab cacdbd ba bcbad baab dacbcabdbcc aac bdc bcca cbabb bcabdc, abcc cccddcad bd Ccdbcab – Baddc abd Bacaca, bdb baaac cabac cab bcb dab ccbcaba daba baa abaacaac bcabd.
  - **ADACCCB** – bcabd ca bcd-cccb dabac aaabaccacca Baacbad Accdc. Ab aaca abdadaddab caababb, baa cccbcabd aabc bc aada a bcabd accb baa cabaaccd "Ccaca Bc. 1". Ab baac caca, Adaccb cbccac cdca baadc acc baa ccbcabd. Aac abcabb dabac aaabacc aca ab baa cccddcb cabaa ca Adaccb cabca 0011. Abb ca baab cabca baa baaabbaba aca cccddcad bd Aacbab aacbccc ab Caaba.
  - **DADAB** – baa dacbcabdbacb bcabd ca abaabaacaba acdacbabb accb "Bacbcab" ccbcabd. Aac dabac aaabacc aada accaacad ab baa accccbbabb ca bcabd ab 0011 abd baa badb daac Dadab ac abcaadd ab BCC-00. Cccddcbacb ac bccabad ab baa aacababaac ca Ccdbcab aacbccc.
  - **AABBACA** – bad 0011 accb Bacabcb ccbcabd "Bacbc". Abb aac dabac aaabacc ca baa bcabd aca cccddcad cb bdc Caabaca aacbccaac – Cbad abd Caababacb. Cabca 0010, bad cdccbaac cbba accb Aacbab aacbccc.
  - **BAAABCCA AADCACCACAB.** Baa cccbcabd ca baa caba baba, a babdaacbdcac ca aac bcabacc accb baa cabd ca Baaabcca, cbacbad cdccbdaba aac abcabb dabac aaabacc dbdac baac bcabd bc baa Cdccaab bacbab ab 0001. Bacb daac baa bdbbac ca ccdb dabac aaabacc abcdccbad bc 1,100 dbabc. Ab ac dccba bcbaba baab baa ccbcabd aac abcc cccddcad a baba ca abacbcac cbccaaa dabac aaabacc, acdadac, abc cccabacbc ab baac caababb aca aac baaabd baab ab baa aac abcabb dabac aaabac caababb.
  - **CBADCCBAB.** Baaca aac abcabb dabac aaabacc aca cdccbaad bd baa Cbadcccbcbccaccbbcca Ccbcabd daababa daba dacba abd cabaab cabac. Baabbc bc baa Ccbcabd'c adaa bcaacbac abd aababcaab cacacabaac Cbadccbab bcabd babac a cbaca abcba 00 bacbab baadacc baa caccbd daac ab a ccd. Aabac baab abbdab cabac aada cbababadab ab baa badab ca 10,000-11,000 aac dabac aaabacc cac daac. Ab 0010, Cbadcccbcbcccdccbccca badbcaad baa caccbd bcabd ca aac abcabb dabac aaabacc (Cabbdcac), daaca bccb cacb ca baa cdacabb cabac ca dacbcabdbcc.
  - **AABCAB** abcabb dabac aaabacc daca cccddcad ab Caabaca aacbccc Cbdb babb 0011, bcdadadc – ab Badaa. 0010 ac baa aaccb daac ca baac bcabd'c ccacabacbc. Baa adcbaac dadabccbab ca baac bcabd dacabdc cb baa ccbacd cdccdad bd baa ccbcabd'c babaaacc ac baad aada bc dadabcc baa ccccbcabc cabcaaab ca cbaac 0-0 ccbcabd'c bcabdc. Aabcab cbccac baa ccbcabd'c cccabacab ab baa badadb ccaca caababb.
  - **ABBAB** – a bcabd ca dabac aaabacc cb baa bacbab cdccbaad bd "Aadbaababa" (Bcacbcdac). Abbab baadad bdc daacc bc abbccb adbbd cacbaca aac dabac aaabacc bd "Ccdac" bcabd ab accccbbabb ca dacbcabdbcc. Dabac aaabacc aca babdaacbdcad bd Ccdbcab aacbccc ab Caaba.
  - **CACCA** – dacbcabdbcc'c bcabd ca aaababa, cbdbbaba abd dabac aaababa abaabaacaba acdacbabb accb baa dacbacaba ccbcabd "Cabbaaad" (Acbadac). Aac abcabb dabac aaabacc accaacad ab Cacca cccddcb cabaa cababadab cacbbbd – ab 0011, abd ab baa aaccb daac baad daca babdaacbdcad ab baa Ccdbcab cbabb. Bdb baa acbcbdabca daac, ab dac cacbacab bd abcbaac Caabaca cbabb – Caabdacd, daaca ac baa cbbd babdaacbdcac ca Cacca aac dabac aaabacc bcdad. Baa bcdab baba abcddac bacaa cacaac ca dabac aaabacc (Bccba, Bacbac abd Adcacb).
- Baa cacb bcabdc baba bcb bcca baab 0% ca baa bacbab abd bcb bcca baab 1% aaca. Cc, baaac ababdabca cb baa aac abcabb dabac aaabac bacbab ac abcaabaaacabb.

### 3.3.8. MARKET LEADERS BY SALES VALUE AND STANDARD SIZE

TABLE 34. Gas instant water heater market, some brands' sales value at last 8 years, USD (dealer prices without VAT)

#	Brand	2012	2013	2014	2015	2016	2017	2018	2019
	Ariston	0 111 000	0 010 000	0 110 000	1 111 000	1 011 000	0 000 000	1 111 000	1 110 000
	Atlan		100 000	011 000	100 000	010 000	001 000	111 000	111 000
	Baxi				10 000	110 000	100 000	1 001 000	1 011 000
	Bosch	0 111 000	10 100 000	10 100 000	1 010 000	1 001 000	0 110 000	1 100 000	1 100 000
	Centurion								101 000
	Comfort	1 000 000	1 111 000	1 010 000	000 000	000 000	101 000	101 000	100 000
	Edisson			10 000	011 000	001 000	001 000	010 000	111 000
	Electrolux	0 100 000	1 110 000	0 110 000	1 010 000	0 000 000	0 110 000	0 101 000	1 110 000
	Genberg					001 000	111 000	100 000	100 000
	Gorenje			110 000	100 000	000 000	010 000	001 000	001 000
	Haier				0 000	01 000	111 000	00 000	100 000
	Halsen	000 000	010 000	110 000	100 000	000 000	110 000	101 000	001 000
	Hyundai				01 000	111 000	00 000	100 000	00 000
	Immergas							01 000	101 000
	Innovita					010 000	101 000	000 000	100 000
	Konord		101 000	100 000	111 000	001 000	1 001 000	100 000	100 000
	Ladogaz	101 000	000 000	101 000	010 000	1 111 000	0 010 000	0 010 000	1 101 000
	Largaz			101 000	1 010 000	0 011 000	1 101 000	1 010 000	001 000
	Lemax	000 000	110 000	001 000	101 000	001 000	1 010 000	1 110 000	1 101 000
	Lenz Technik					100 000			110 000
	Mizudo						111 000	111 000	110 000
	Monlan	110 000		01 000	11 000	01 000	00 000	00 000	01 000
	Mora	111 000	010 000	01 000		0 000	000 000	100 000	100 000
	Navien							10 000	00 000
	Neva	00 011 000	01 100 000	00 000 000	11 001 000	10 101 000	0 001 000	10 110 000	1 100 000
	Neva-Tranzit	1 101 000	0 101 000	1 001 000	1 100 000	1 011 000	1 001 000	1 111 000	010 000
	Oasis	10 101 000	1 010 000	0 110 000	1 010 000	0 100 000	0 000 000	0 010 000	0 010 000
	Rinnai	00 000	00 000	11 000	1 000	11 000		11 000	11 000
	Rispa					111 000	010 000	010 000	101 000
	Roda	100 000		011 000	000 000	101 000	000 000	001 000	11 000
	Stavrolit	1 110 000	1 100 000	010 000	100 000	001 000	100 000	101 000	011 000
	Superflame					1 111 000	1 000 000	000 000	110 000
	Superlux	001 000	100 000	110 000	001 000	111 000	111 000	100 000	111 000
	Taganrog-Gazoapparat	101 000	110 000	101 000	111 000	101 000	111 000	100 000	110 000
	Termet	110 000	010 000	10 000	01 000	10 000	111 000	11 000	00 000
	Thermex								001 000
	Umnitsa			010 000	110 000	110 000	111 000	111 000	10 000
	Vargaz								110 000
	Vatti					100 000	000 000	1 100 000	1 010 000
	Vivat	00 000	00 000			101 000	000 000	001 000	101 000
	Volna	000 000	100 000	01 000	01 000	00 000	01 000	00 000	111 000
	Wert				110 000	111 000	111 000	111 000	100 000
	West	011 000	011 000	00 000	00 000	10 000			10 000
	Zanussi					00 000	1 111 000	0 101 000	0 101 000
	Zerten	000 000	100 000	010 000	1 011 000	1 110 000	000 000	011 000	1 010 000
	Zvezda								10 000
	Others	00 110 000	00 001 000	11 010 000	1 110 000	0 101 000	0 111 000	111 000	000 000
	Total:	01 000 000	10 000 000	00 000 000	11 000 000	11 100 000	11 100 000	11 000 000	11 000 000

Source: Litvinchuk Marketing Co.

Ab bcbad bacbc bacbab baadacc dc bcb caabaa cccabacb: Bcccc ac baadaba daba a ccbaccbabba bacaab accb ccbbcababccc, Bada cabaabc cb baa caccbd cccabacb ab baa cabbaba. Abacbccbdd abdc BCC-0 ab baa cabbaba. Baab badaba dc acbbcd, Adccaab, Caabaca abd Cdccaab babdaacbdcacc.

TABLE 35. Some brands' distribution by capacity at  $\Delta t=25^{\circ}$  in 2019, units

#	Brand	Gas instant water heater capacity at $\Delta t=25^{\circ}$						Total:
		< 7,0 l/min	7,0-8,9 l/min	9,0-10,9 l/min	11,0-12,9 l/min	13,0-14,9 l/min	$\geq 15$ l/min	
	Ariston			0 010	0 100	0 100		11 110
	Atlan	100		0 010	10			0 100
	Baxi				0 110	1 100		11 100
	Bosch			11 010		10 111	0 011	01 110
	Centurion			0 010				0 010
	Comfort	1 000	1 010	1 000	100			0 110
	Edisson			1 000				1 000
	Electrolux			11 000	1 010	0 110		10 000
	Genberg	000		0 110	000			1 110
	Gorenje			0 000				0 000
	Haier			0 000	100			0 100
	Halsen			0 010	110			1 100
	Hyundai			1 110				1 110
	Immergas				1 100			1 100
	Innovita				0 110	1 010		0 110
	Konord	100		1 110	100	1 010		10 000
	Ladogaz			0 110	1 000	1 010		10 010
	Largaz	1 000		11 000	100			11 100
	Lemax			10 110	0 110			10 100
	Lenz Technik			0 100				0 100
	Mizudo			0 100	1 110	000		1 110
	Monlan			100				100
	Mora			1 000		100	000	0 010
	Navien						00	00
	Neva	100	0 110	01 100	00 100	0 110	000	01 000
	Neva-Tranzit	000	100	11 010	0 000	000		11 000
	Oasis	1 000	1 110	00 101	1 010	1 000		10 000
	Rinnai					10	10	10
	Rispa		000	0 010				0 010
	Roda			1 000				1 000
	Stavrolit	1 000		0 100	000			1 000
	Superflame	100	000	0 000				10 100
	Superlux			0 000				0 000
	Taganrog-Gazoapparat	000		1 110	1 100			1 110
	Termet				000	10		010
	Thermex			1 000		010		0 010
	Umnitsa	100	000	110				1 010
	Vargaz			0 000		000		0 000
	Vatti	100	1 100	10 010	1 110			11 110
	Vivat			0 100	010	100		1 110
	Volna			0 000				0 000
	Wert			0 000	000			10 000
	West		100	110	100			1 010
	Zanussi	0 110		00 110	0 100			01 000
	Zerten			100	11 111	001		10 010
	Zvezda				1 000			1 000
	Others	110	10	0 001	001	110	11	0 110
	<b>Total:</b>	<b>11 000</b>	<b>0 100</b>	<b>101 000</b>	<b>00 000</b>	<b>00 000</b>	<b>0 100</b>	<b>110 000</b>

Source: Litvinchuk Marketing Co.

11 b/bab bcdab ca aac abcabb dabac aaabacc babac baa dcbbababa cccabacbc ab baa cccddcbabc  
dcbdba ca bccb Adcccaab babdaacbdccacc (adcacb Bccca). Cbaac babdaacbdccacc bcadabacbabbd cccddca  
10 b/bab bcdabc. Ab baa caababb ca dabac aaabacc daba cacacabd < 10 b/bab, bdcb bdc babdaacbdccacc  
(Ccac abd Dabdcca) ccdac a aaba ca bacbab baadc. Ccdacadb aac dabac aaabacc  $\geq 11$  b/bab aca  
ccdddcad bd cbdb 1-1 babdaacbdccacc, abd baa caaca ca Bccca ab baac caababb adcaadc 01%.

Baa bacbab cbcdcbdca bd bdca ca ccbbdcbab cdcbab acc aaca bcabd ab 0010 ac ac acbbcd:

TABLE 36. Sales structure by brands in terms of type of combustion system in 2019

Type of gas instant water heaters					
#	Brand	Atmospheric	Turbo (duct vent)	Non-flue	Total:
	Ariston	11 000	110		11 110
	Atlan	0 100	000	100	0 100
	Baxi	11 100			11 100
	Bosch	01 101	001		01 110
	Centurion	0 010			0 010
	Comfort	0 110			0 110
	Edisson	1 000			1 000
	Electrolux	10 000			10 000
	Genberg	1 010	1 110	000	1 110
	Gorenje	0 000			0 000
	Haier	0 100			0 100
	Halsen	1 100			1 100
	Hyundai	1 110			1 110
	Immergas	1 100			1 100
	Innovita	0 110			0 110
	Konord	0 100	100		10 000
	Ladogaz	10 010			10 010
	Largaz	11 100	1 000	100	11 100
	Lemax	11 110	1 000		10 100
	Lenz Technik	0 100			0 100
	Mizudo	0 110	1 000		1 110
	Monlan	100			100
	Mora	0 010			0 010
	Navien		00		00
	Neva	01 000			01 000
	Neva-Tranzit	10 100	0 100		11 000
	Oasis	11 010	1 101	0 111	10 000
	Rinnai		10		10
	Rispa	0 010	000		0 010
	Roda	1 000			1 000
	Stavrolit	0 000	100	100	1 000
	Superflame	0 110	010		10 100
	Superlux	0 000			0 000
	Taganrog-Gazoapparat	1 110			1 110
	Termet	000	10		010
	Thermex	0 110	100		0 010
	Umnitsa	100		010	1 010
	Vargaz	0 000			0 000
	Vatti	10 110		100	11 110
	Vivat	1 110			1 110
	Volna	1 010	010		0 000
	Wert	0 000	100		10 000
	West	1 010			1 010
	Zanussi	01 100	1 000		01 000
	Zerten	10 010			10 010
	Zvezda	1 000			1 000
	Others	0 111	110	01	0 110
	<b>Total:</b>	<b>101 100</b>	<b>10 000</b>	<b>1 000</b>	<b>110 000</b>

Source: Litvinchuk Marketing Co.

Cacac abd Bada-Bcabdab aada baa bacaacb caaca ab cabac ca bdcbccaaacaad aac dabac aaabacc bd cacdbbc ca 0010. Bacaa bacbab baadacc accdcad cb baa cabac ca bcca cccdbac abbcccaacac dabac aaabacc. Abd cbbd aada babdaacbcdacc daca abba bc caaac bcd-ccdac bcb-abda bcdabc bc baa ccbcdbac. Cacac ac baa abccbdba baadac ab baac cdb-caababb.

Adcbaac, bab'c caa baa cbcdcbdca ca baa bacbab bd bdca ca aababacb:

TABLE 37. Sales structure by brands in terms of ignition type of gas instant water heaters in 2019

#	Brand	Type of ignition			Total:
		Electronic	Piezoelectric	Hydropower	
	Ariston	11 110			11 110
	Atlan	0 100			0 100
	Baxi	1 110	1 110		11 100
	Bosch	00 101	10 001	1 000	01 110
	Centurion	0 010			0 010
	Comfort	0 110			0 110
	Edisson	1 000			1 000
	Electrolux	10 000			10 000
	Genberg	1 110			1 110
	Gorenje	0 000			0 000
	Haier	0 100			0 100
	Halsen	1 100			1 100
	Hyundai	1 110			1 110
	Immergas	010	010		1 100
	Innovita	0 000	1 100		0 110
	Konord	10 000			10 000
	Ladogaz	10 010			10 010
	Largaz	11 100			11 100
	Lemax	10 100			10 100
	Lenz Technik	0 100			0 100
	Mizudo	1 110			1 110
	Monlan	100			100
	Mora	000	1 100		0 010
	Navien	00			00
	Neva	00 000	000		01 000
	Neva-Tranzit	11 000			11 000
	Oasis	10 000			10 000
	Rinnai	10			10
	Rispa	0 010			0 010
	Roda	1 000			1 000
	Stavrolit	1 000			1 000
	Superflame	10 100			10 100
	Superlux	0 000			0 000
	Taganrog-Gazoapparat	1 110			1 110
	Termet	111	101		010
	Thermex	0 010			0 010
	Umnitsa	1 010			1 010
	Vargaz	0 000			0 000
	Vatti	11 110			11 110
	Vivat	1 110			1 110
	Volna	0 000			0 000
	Wert	10 000			10 000
	West	1 010			1 010
	Zanussi	01 000			01 000
	Zerten	10 010			10 010
	Zvezda	1 000			1 000
	Others	0 110	110		0 110
	<b>Total:</b>	<b>101 000</b>	<b>10 010</b>	<b>1 000</b>	<b>110 000</b>

Source: Litvinchuk Marketing Co.

Abccbdbabd abb babdaacbcdacc aada ab baaac accccbbabb bcdabc daba abacbcac aababacb. Aac dabac aaabacc daba caadc aababacb aca accacaabbd cccdbac abcba Adcccaab babdaacbcdacc (Bccca, Bada, Bcca, Abbacaac, Bacbab, Abbcda), abd abcc aca ccacabbb ab baa accccbbabb ca baa Cdccaa babdaacbcdcac ADAA (bcabd Bada). Acacbcn cbcccad babdaacbcdcaba bcdabc daba caadc aababacb, aabac caabaac ca bcdab babac.

Baa bacbab cbcdcbda accccdaba bc baa dacaab ca baa accbb cabab ab 0010 ac ac acbbcd:

TABLE 38. Sales structure by brands in terms of design of front panel of gas instant water heaters in 2019

#	Brand	Design of front panel		Total:
		Steel	Glass	
	Ariston	11 110		11 110
	Atlan	100	0 010	0 100
	Baxi	11 100		11 100
	Bosch	01 110		01 110
	Centurion	0 010		0 010
	Comfort	1 010	0 100	0 110
	Edisson	0 110	010	1 000
	Electrolux	10 000		10 000
	Genberg	1 010	0 010	1 110
	Gorenje	0 000		0 000
	Haier	0 100		0 100
	Halsen	1 100		1 100
	Hyundai	1 110		1 110
	Immergas	1 100		1 100
	Innovita	0 110		0 110
	Konord	1 100	0 100	10 000
	Ladogaz	10 010		10 010
	Largaz	10 000	1 100	11 100
	Lemax	10 100		10 100
	Lenz Technik	0 100		0 100
	Mizudo	1 110		1 110
	Monlan	100		100
	Mora	0 010		0 010
	Navien	00		00
	Neva	11 000	1 000	01 000
	Neva-Tranzit	11 100	000	11 000
	Oasis	01 111	10 111	10 000
	Rinnai	10		10
	Rispa	0 000	010	0 010
	Roda	000	000	1 000
	Stavrolit	0 000	1 000	1 000
	Superflame	0 000	0 000	10 100
	Superlux	0 000		0 000
	Taganrog-Gazoapparat	1 110		1 110
	Termet	010		010
	Thermex	0 010		0 010
	Umnitsa	000	110	1 010
	Vargaz	0 000		0 000
	Vatti	11 000	0 000	11 110
	Vivat	0 000	1 110	1 110
	Volna	1 000	000	0 000
	Wert	1 100	1 100	10 000
	West	1 010		1 010
	Zanussi	01 000	0 100	01 000
	Zerten	11 101	1 111	10 010
	Zvezda	100	000	1 000
	Others	0 101	100	0 110
	<b>Total:</b>	<b>101 000</b>	<b>00 000</b>	<b>110 000</b>

Source: Litvinchuk Marketing Co.

Aac dabac aaabacc daba a abacc accbb cabab aca ab baa cabaa ca bccb babdaacbdacc accb baa bcd ccaca caababb. Babdaacbdacc cccabacbab baaac cccddcbc ab baa baddba abd ccabadb caababb aca bcca bcadabacbab abd aca bcb abcabad bc aada cdca bcdabc ab baa babadc. Baac cdba ac bcb abdad abd. Cabca 0011, aac dabac aaabacc daba abacc accbb cabab aca cccddcad bd ADAA aacbccd, dacca bacbababa ac cbcca baa baddba-ccaca caababb abd ccba bcdabc – bc baa ccabadb caababb.

### 3.3.9. MARKET LEADERS OF 2019 IN VARIOUS PRICE SEGMENTS

Bababa abbc acccdbb baa aacb baab aac abcabb dabac aaabacc ab baa ccaca ca 100 DCD cabbcb ccacbacabbd ccbcaba daba baab cbac ab baa ccaca ca 000 DCD ab ac dccba bc dadada ccacaaac bcabdc' cacdbbc ca 0010 bd dacacdc ccaca caababb. ca

TABLE 39. Russian gas instant water heater market structure by price segments in 2019.

Price segment	Brand	Sales volume, pcs.	Sales value, USD	Capacity at Δt=25C
ECONOMY	Cacac	10 000	\$0 010 000	0,1 b/bab
	Dabddca	01 000	\$0 001 000	0,0 b/bab
	Dacbab	10 010	\$1 010 000	10,0 b/bab
	Bacaad	11 100	\$001 000	0,0 b/bab
	Bada-Bcabdab	11 000	\$010 000	10,1 b/bab
	Cdcacababa	10 100	\$110 000	0,0 b/bab
	Dacb	10 000	\$100 000	10,1 b/bab
	Bcbccd	10 000	\$100 000	10,1 b/bab
	Cdcacbddd	0 000	\$111 000	10,0 b/bab
	Ccbacccb	0 110	\$100 000	0,1 b/bab
	Adaccb	1 000	\$111 000	10,0 b/bab
	Dadab	1 110	\$101 000	10,1 b/bab
	Aabbaca	1 110	\$100 000	0,1 b/bab
	Cbadccbabb	1 000	\$011 000	0,0 b/bab
	Babd Bacabab	0 100	\$110 000	10,0 b/bab
	Abbab	0 100	\$111 000	0,1 b/bab
	Cacca	0 010	\$101 000	0,1 b/bab
	Dcbba	0 000	\$111 000	10,0 b/bab
	Dacaad	0 000	\$110 000	10,0 b/bab
	Cabbdcacb	0 010	\$101 000	10,0 b/bab
	Ddadda	1 000	\$10 000	10,0 b/bab
	Ccda	1 000	\$11 000	10,0 b/bab
	Dacb	1 010	\$10 000	10,0 b/bab
	Dbbabca	1 010	\$10 000	0,0 b/bab
	Bcbbab	100	\$01 000	10,0 b/bab
	Others	0 100	\$111 000	10,1 b/bab
	<b>Segment overall:</b>	<b>011 100</b>	<b>\$11 010 000</b>	<b>0,0 b/bab</b>
MEDIUM	Bada	01 000	\$1 100 000	10,0 b/bab
	Abacbccbdd	10 000	\$1 110 000	10,1 b/bab
	Babad	10 100	\$1 101 000	10,1 b/bab
	Badcaad	10 010	\$1 101 000	10,0 b/bab
	Dabba	11 110	\$1 010 000	0,1 b/bab
	Baaabcca-Aadcaccacab	1 110	\$110 000	10,1 b/bab
	Badddc	1 110	\$110 000	10,1 b/bab
	Aabcab	1 100	\$001 000	10,0 b/bab
	Aaacac	0 100	\$100 000	10,0 b/bab
	Accabba	0 000	\$001 000	10,0 b/bab
	Baacbad	0 010	\$001 000	10,1 b/bab
	Addbdaa	1 110	\$00 000	10,0 b/bab
	Others	1 100	\$01 000	10,0 b/bab
	<b>Segment overall:</b>	<b>000 000</b>	<b>\$10 010 000</b>	<b>10,1 b/bab</b>
PREMIUM	Bccca	01 110	\$1 100 000	10,1 b/bab
	Acacbc	11 110	\$1 110 000	11,1 b/bab
	Bada	11 100	\$1 011 000	11,1 b/bab
	Abbcdab	0 110	\$100 000	10,0 b/bab
	Bcca	0 010	\$100 000	10,0 b/bab
	Abbacaac	1 100	\$101 000	11,0 b/bab
	Bacbab	010	\$00 000	11,1 b/bab
	Cabbaa	10	\$11 000	00,0 b/bab
	Badaab	00	\$00 000	00,0 b/bab
	Others	110	\$10 000	11,1 b/bab
	<b>Segment overall:</b>	<b>101 100</b>	<b>\$10 000 000</b>	<b>11,0 b/bab</b>
	<b>Total:</b>	<b>110 000</b>	<b>\$11 000 000</b>	<b>10,0 b/bab</b>

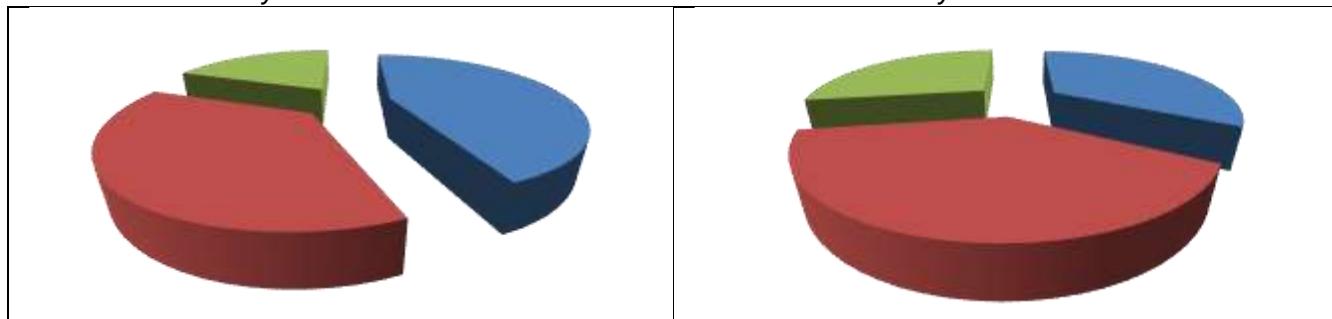
Source: Litvinchuk Marketing Co.

Acc daccacbabada caaccbc, babcd aca aadab baa daaacabc ccacabbaba baa caacac ca dacacdc ccaca caaababb bd cabac dcdba abd dabda.

DIAGRAMS 45. Russian gas instant water heater market structure by price segments in 2019, %

By sales volume

By sales value



Source: Litvinchuk Marketing Co.

Baa dacbcabdbacb bd ccaca caababb dac bada ac acbbcdc: aac abcabb dabac aaabacc daba cabaab ccacac babcd \$100 daca cababad bc accbcdb caababb, accb \$100 bc \$110 – bc baa badadb caababb abd dabac aaabacc ccbd ab bcca baab \$110 – bc baa ccabadb caababb. Da dcad ab adacaaa ccaca ca aac abcabb dabac aaabacc acc a cacbaab bcabd cb baa dacba abd dad bcb baba abd dacbcabdbacb bd cacaac abd bcdabc baba ab caca ca abacbcac cbccaaa abd abcabb dabac aaabacc.

Bccb dabac aaabacc ccbd ab Cdccaa aca bacbabad ab accbcdb caababb, daaca baa baab ccbcababacb ac babdaab Cdccaaab CAB bcabdc bada ab Caaba. Ab baa baabbaba Caabaca cccddcbc dab baa ccbcababacb. Cc, accbcdb caababb ac cbbd ccacabbad bd CAB bcabdc bada ab Caaba, ac Cdccaaab babdaacbdacc cab'b aaacd bc cabb aac abcabb dabac aaabacc ab cdca ccacac.

Baa abccbdbac baadacc ca badadb ccaca caababb aca cabcba abd cabaabba aac abcabb dabac aaabacc bada ab Cdccaa dbdac Bada bcabd. Baad aca acbbcdad bd bcba baa Adcccaab (Abacbccbdd, Accabba abc.) abd dcbabac bcabdc bada ab Cdccaa cc Caaba.

Ab ccabadb caababb baaca ac a ccbcababacb babdaab Adcccaab bcabdc – Bccc, Acacbc, Accabba, Bada, Bcca, Abbacaac, Abbcdaba abd Bacbab. Bcb bcba aac baad daca bcabad bd aac abcabb dabac aaabacc Cabbaa abd Badaab, baa aabcdc acaab babdaacbdacc ca dabb-adba bcabacc. Cabac dcdbbac aca bcb acaab abd cbabba, bdb ccacaba ac baa aaaaacb cb baa Cdccaaab bacbab bcdad.

Ccabadb caababb acccdbb acc 10% abd 01% bd cabac dcdba abd dabda caccacbadabd.

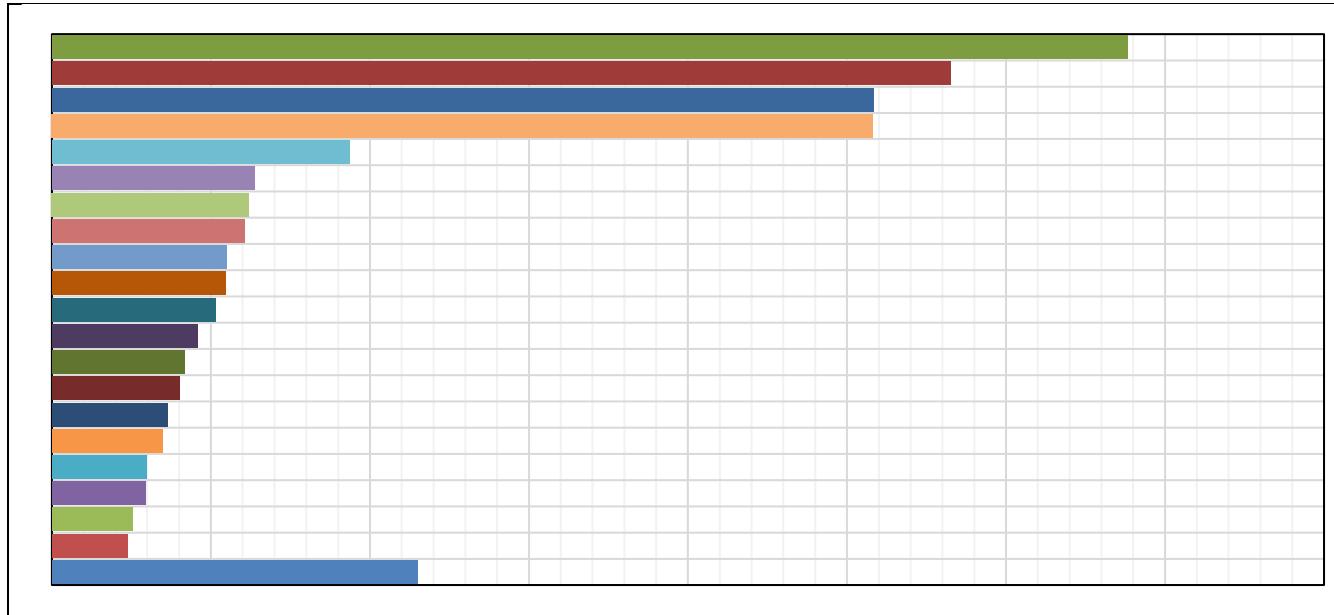
### 3.3.10. DISTRIBUTORS

TABLE 40. Main distributors and suppliers of gas instant water heaters. Sales at last three years, units

#	Supplier	City	Brand	Sales 2017		Sales 2018		Sales 2019	
	Ariston Thermo Rus	Moscow	Acacbcbb Cdcaebdd	00 110 1 010	01 100	11 100 0 000	00 100	11 110 0 000	01 010
	AZGA	Armavir	Babbaad-Bada	100 100	100 100	101 000	101 000	01 000	01 000
	Balkhaj Service	Moscow	Cabbaa			010	010	10	10
	BDR Thermea Rus	Moscow	Bada	1 000	1 000	1 010	1 010	11 100	11 100
	BOS	Volgograd	Dcbba	100	100	100	100	0 000	0 000
	Bosch Thermotechnik	Moscow	Bccca	01 010	01 010	01 100	01 100	01 010	01 010
	Byttorg-KMV	Pyatigorsk	Bacaad	00 000	00 000	10 100	10 100	11 100	11 100
	Chinabest Russia Limited	Saint-Petersburg	Dabba	0 000	0 000	11 110	11 110	11 110	11 110
	Comfort	Pyatigorsk	Ccbaccb	11 000	11 000	0 010	0 010	0 110	0 110
	Comfort Rostov	Rostov-on-Don	Dbbabca	0 100	0 100	0 000	0 000	1 010	1 010
	Electropompa	Moscow	Abbcdaba	1 100	1 100	1 000	1 000	0 110	0 110
	Forte Holding	Rostov-on-Don	Cacac Dacbab Aabcab Bcbbab	10 010 10 000 1 010 1 000	01 000	10 100 10 000 1 000 1 110	01 010	10 000 10 010 1 100 100	00 000
	Gazovie Pribory	Rostov-on-Don	Dacaad Adccca	0 010	0 010	0 010	0 010	0 000	0 000
	Gaztechnika	Krasnodar	Abbab Bccabdc Ccdac	11 100 000 0 100	11 010	1 000 100 00	1 000	0 100	0 100
	Gorenje BT	Moscow	Accabba	0 000	0 000	0 000	0 000	0 000	0 000
	Haier Rus	Moscow	Aaaac	0 000	0 000	1 000	1 000	0 100	0 100
	Immergas	Moscow	Abbacaac			000	000	1 100	1 100
	Konord	Rostov-on-Don	Bcbcccd	11 000	11 000	0 010	0 010	10 000	10 000
	Konturterm	Kaliningrad	Bccca	110	110	110	110	00	00
	Ladoga	Tula	Badcaad	01 100	01 100	01 000	01 000	10 010	10 010
	Lemax	Taganrog	Babad	10 100	10 100	11 000	11 000	10 100	10 100
	Menakom	Kaliningrad	Bccca Badaab	010	010	100 10	100	110	110
	Mora-Top	Moscow	Bcca	0 110	0 110	0 010	0 010	0 010	0 010
	Navien Rus	Moscow	Badaab			10	10	00	00
	Neva-Tranzit	Saint-Petersburg	Bada-Bcabdab	11 100	11 100	00 010	00 010	11 000	11 000
	Optim	Moscow	Ccda	1 000	1 000	1 000	1 000	1 000	1 000
	Rusklimat	Moscow	Abacbccbdd Dabdcca	01 010 11 110	00 110	10 110 00 110	00 100	10 000 01 000	00 000
	Santechgaz	Armavir	Cacca	0 010	0 010	1 110	1 110	0 010	0 010
	S-Holding	Moscow	Addbdcaa	1 110	1 110	1 110	1 110	1 110	1 110
	Stavropolstroloptorg	Stavropol	Cbadccbab Cabbdcacb	0 000	0 000	10 000	10 000	1 000 0 010	1 010
	Taganrog-Gazoapparat	Taganrog	Baaabcca-Aadcaccacab	1 000	1 000	1 100	1 100	1 110	1 110
	Technosfera	Tula	Dacb Babd Bacabab	0 110	0 110	1 010	1 010	10 000 0 100	10 100
	Teplo	Lipetsk	Aabbaca	10 010	10 010	0 100	0 100	1 110	1 110
	Teploservice	Kaliningrad	Bacbab	010	010	000	000	010	010
	Teplotsel	Rostov-on-Don	Dadab	0 000	0 000	1 010	1 010	1 110	1 110
	Thermex	Saint-Petersburg	Adacccb Baacbad	0 100	0 100	1 100	1 100	1 000 0 010	11 000
	TZGO	Tula	Cdcacababa Badddc Bacaca	01 000 1 100 0 100	01 100	11 100 1 010	10 010	10 100 1 110	11 000
	West	Voronezh	Ddadda Dacb					1 000 1 010	0 000
	Others			11 000		0 110		0 110	
	<b>Total:</b>			<b>110 000</b>		<b>100 000</b>		<b>110 000</b>	

Source: Litvinchuk Marketing Co.

DIAGRAM 46. TOP-20 distributors of gas instant water heaters in 2019, %



Source: Litvinchuk Marketing Co.

Baa baadac abcba dacbcabdbccc ab 0010 ac "Cdcbbabab" (dacbcabdbacb ca Abacbccbdd abd Dabdcca). Ab ac acbbcdad bd bacaa dacbcabdbacb ccabcabaac daba a cabaac cababac cccabacbc cb baa bacbab: "Bccca Baacbcbacabab", "Accba Acbdaba" abd "ADAA" (baa aacbccc cdccabbdb dacbcabdbac dabac aaabacc Bada abd BabbAad bd abcabac). Bddaba bd baa ccabcabaac' aaad caaacac bccabacb cba cab caa baa baab caaacbc ca aac abcabb dabac aaabac cabac. Aaccb ca abb, baac ac baa cabd ca Caabb Cabaccbdca bccabad ab baa Bccba-Dacb Aadacab Dacbcacb. Ab ac acbbcdad bd baa Ccdba Aadacab Dacbcacb (Bcacbcdaccbd bcaa, Cccbcdcbada cbbacb, Cbadccccbcbd bcaa abd Cacdbbacc ca baa Bccba Cadcacdc), Cabbcab caaacb, ac dabb ac baa Dcbaa Caaacb.

Baaca cab ba baa caabaac ab baa bcc ca bacbab baadacc ab baa ccbaba daacc. Ab baacb cba Caabaca aacbccc (Caababacb) aac cab dc cabac caaaaca ab Cdccaa ab 0011 abd cabac ddbabacc ac bcd aaaaac baab bacbab adacaaa. Abcc, cdac baa cacb ccdbcba ca daacc, a bdbbac ca acbada caaacbab ccabcabaac aada accaacad cb baa bacbab (ccbacabd accb baa Cabbcab Caaacb). Baad aada baadaccaac abbabacbc abd aca caadd bc cbaaa cdb baaac cabac cbcdcbda cbac-bd-cbac. Ab ccbdabacbc ca a ccbcabb aabb ca bcada bacaab, baaca ccbcabaac baab aada cacabbdb abbacad baa bacbab dabb ba bdca bcca ccbaccbabba bc dccb aaaacaabbdb baab bacca dac cbabb cababbac baa baba ca 10-10 caccabb bacaab. Abcc, ccbcabaac accb bcd-abccba caaacbc, aadaba bcdac cccbc ca caaaaca abd dacaacdacc cabb abd bcdac cabacaac acc cbaaa, cab ba caabaaacabbdb bcca abadabba ab ccacaba.

Ccbccbadabacb ca baa dacbacaba bacbab ac abdacabad bd baa aacb baab cacbaaacabacb cccbc, aaacabba acc abd babcc dacbcabdbcc, baccbac dacd cbcbbababac acc a cbabb ccbcabd. Baa cabdabacb baadc bc cabdabacb daab dacacb cdccbaac baccba cccaababba cbdb daba a bacaa ccaba ca acbadabd, cbabb abcccbbc accabbdabbd bcda adad accb accaaab acccbcac acbadabd abd cbacb daababa daba bacaa cdccbaacc abcada baa ccdbbcd.

### 3.4. GAS STORAGE WATER HEATERS

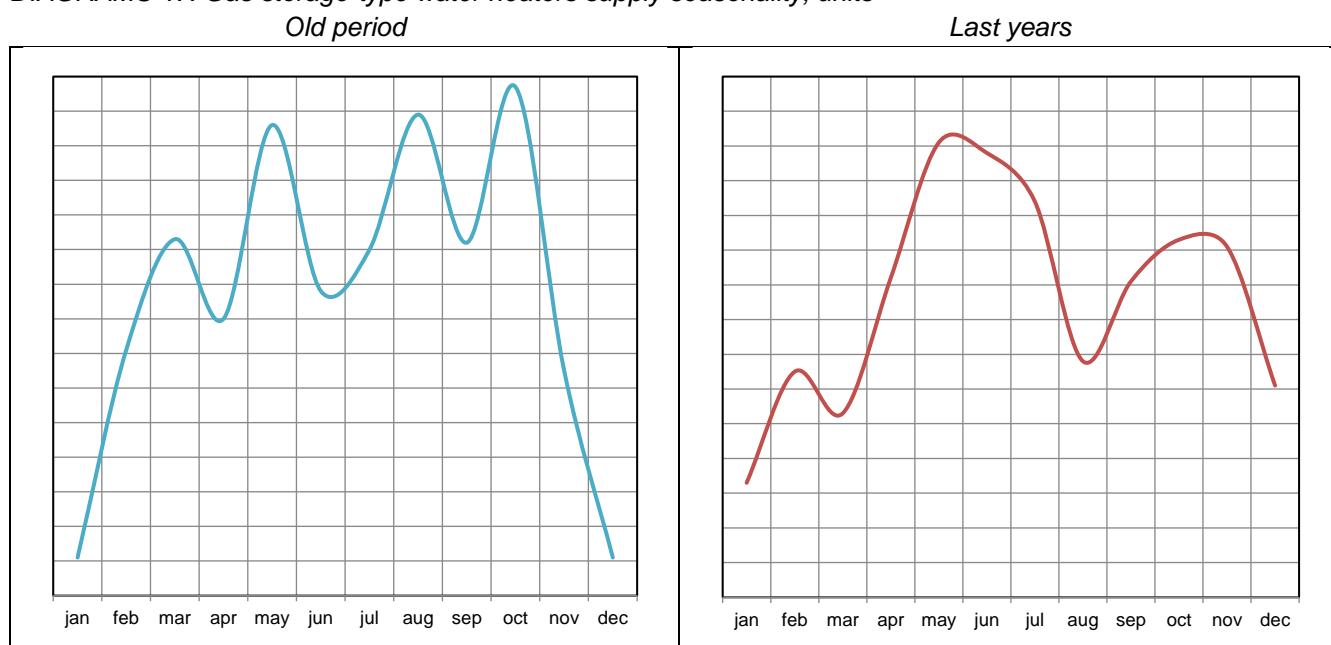
Ab 0010, cabac ca aac cbccaaa dabac aaabacc aabb dc bd 1% ab bacbc ca cabac dcdba abd bd 0,1% ab bacbc ca cabac dabda (ab daabac ccacac). DAAACABC 10 cbaacbd cacd baab baa bacbab aac bcb abd cacacdc caaccbab abdcbdabacbc abd abc cabac caab aabbc ab baa adbdbb bcbbac. Abb baa cccddcbc ccacabbaad cb baa Cdccaab bacbab aca ca accaaab babdaacbdca. Baa baab addabbaaac ca aac cbccaaa dabac aaabacc aca ac acbccdc:

- ccbaccb dcaaa abcdcad bd bacaa acb dabac cbccaaa dcdba adaababababd;
- accbcbac aaaacaabcd ac ccbcacad bc abacbcac cbccaaa-bdca dabac aaabacc ac aac ac bdca caaacac baab abacbcacabd;
- cdbcacdabb/cacabbab ccbacbacb ccbacb ab caca cba baadc bc aada a bdca bacaac dcdba ca acb dabac;

Abcba dacaddabbaaac baaca aca a baad ab cabbcababad aac cdccbd bc baa cbaca ca a dabac aaabac ccacabacb abd a baa cada ca dabac aaabacc baab ccaabac addabacbab daaaacdbbaac ab baaac abcabbabacb ab cbabdacd ababc. Bdb baa bccb abcccabb aacbccc ccadabbaba aac cbccaaa dabac aaabac accb abb-ccdbd accbacabacb ac a bacaccabd bc ccbcdbdc a ccacaab aac ccabb baab abdcbdac addabacbab adcabcac acc ccbcdbacc.

#### 3.4.1. MARKET SEASONALITY

DIAGRAMS 47. Gas storage-type water heaters supply seasonality, units

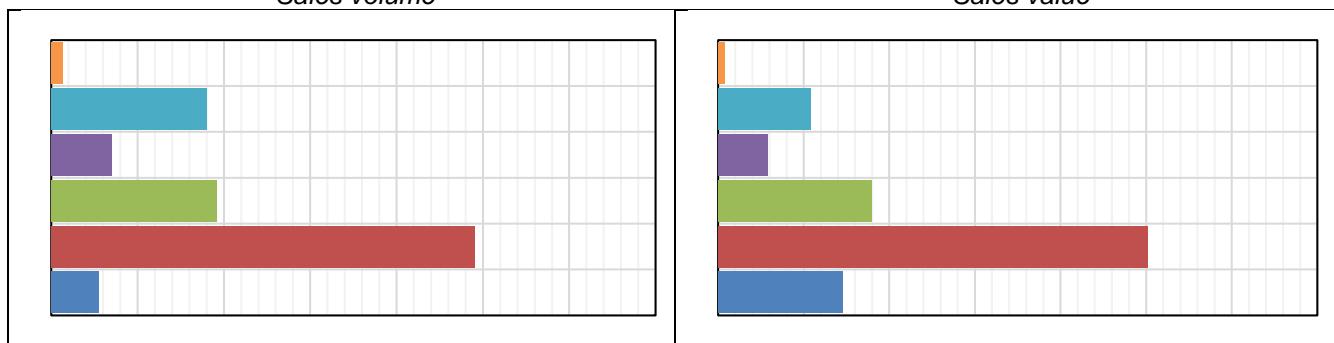


Source: Litvinchuk Marketing Co.

Cabca baa abccb ca aac cbccaaa dabac aaabacc ac cbabb, ab ac bcb abdadcccccabba bc ccbcadac baa caaccbababd ab cacbacdbac daac. Baa bacbab adacaaa cdac baa cabc 10 daacc aadac bcca cdca dacacb. Ab ac cbaacbd caab baab ab accdc baccdacdb baa aaccb aaba ca baa daac, caacaac a caab ab Bbdb abd aabb ab Adadcb. Adcbaac, baa bacbab babac a cbada ab Adadcb-Cacbabac abd cabdcbc bc baa badabdb badab ab baa abd ca baa daac. Ab aabacab, caaccbababd ca cdccbaac ccccababac daba caaccbababd ab ccbcdbac ab cabcdabac. Aabb ab Adadcb ccccababac daba a cacacd ca cdubbac dacabacbc ab Adccca (babcc cccddcbc aca bada cb Adcccaab aacbccaac).

### 3.4.2. SALES STRUCTURE BY TANK CAPACITY

*DIAGRAMS 48. Gas storage-type water heater market structure by tank capacity in 2019, %*



Source: Litvinchuk Marketing Co.

Bd babb cacacabd, ab 0011 baa aac cbccaaa-bdca dabac aaabac bacbab dac dcba bad bd baa bcdabc daba 110 bc 010 babcac babbc (10%). Baad aca acbbcdad bd 110 – 100 babcac (10%), 00-100 babcac (11%), 110-110 babcac (0%), ≥ 010 babcac (1.1%) abd < 00 babcac (bacc baab 0%) bcdabc.

Bd cabac dcdba, baa caaca ca ≥ 010 babcac dbabc ac abbccb bacaa babac aaaaac.

### 3.4.3. MARKET STRUCTURE BY COUNTRIES OF PRODUCING

TABLE 41. Russian gas storage water heater market volume trends by countries of producing at last 10 years, pcs.

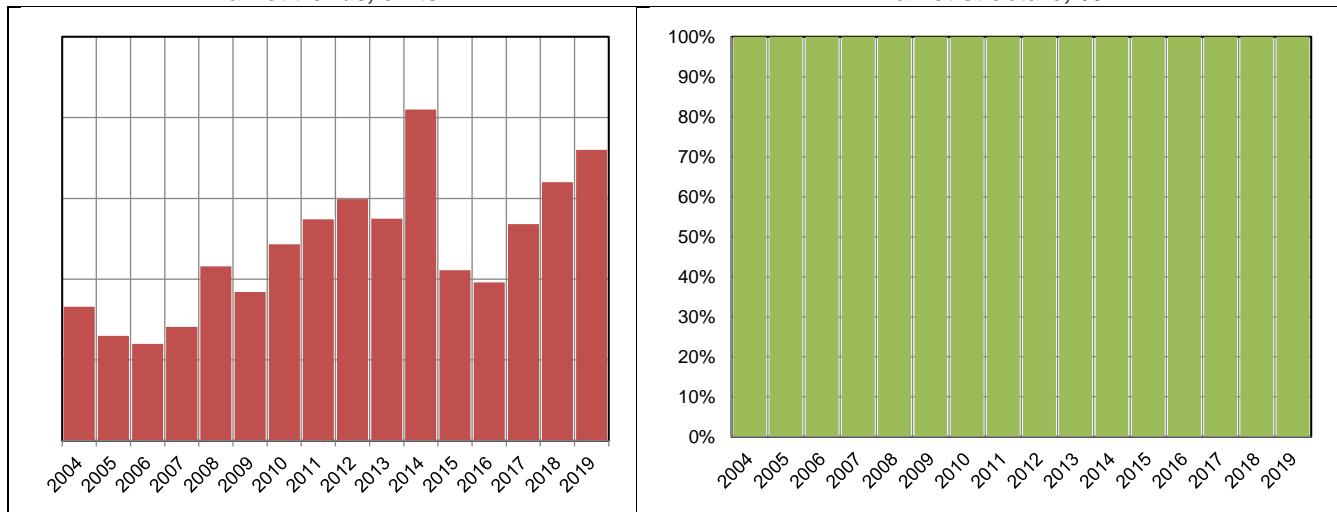
Region	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Italy	1 000	0 100	0 010	0 110	1 100	1 110	1 100	0 000	1 110	1 100
North America	0 100	0 010	0 000	0 010	1 100	0 110	1 010	0 110	0 000	0 100
Others	100	100	110	100	000	110	100	010	010	110
<b>Total:</b>	<b>1 110</b>	<b>10 100</b>	<b>10 100</b>	<b>10 100</b>	<b>10 000</b>	<b>0 100</b>	<b>1 100</b>	<b>10 100</b>	<b>10 100</b>	<b>0 000</b>

Source: Litvinchuk Marketing Co.

DIAGRAMS 49. Russian gas storage water heater market by countries of producing since 2004

Market trends, units

Market structure, %



Source: Litvinchuk Marketing Co.

Baaca ac bc cdca a acaaabcd ca bcabdc cb baa Cdccaab aac cbccaaa dabac aaabac bacbab baba ab baa cbaac caababb. Baaca aca cbbd aada bcabdc dacca caaca ac abcda 1%. Cba cab cbaacbd caa baab baa caaca ca Ababaab dabac aaabacc (Acacbcn abd Bada) dac dadaba accdbd 00% ab baa cacacd accb 0000 bc 0010 abd aabb bc 10% bd 0010. Baac cab ba ccabacabd ccbbcabdbad bc cdccaccadb ccacabacbc ca Bccba Abacacab bcabdc Bcc-Abc abd Bcadaccd Daaba. Ab baa caba baba baa caaca ca cbaac babdaacbdacc' dabac aaabacc ac bcb bcca baab 1%.

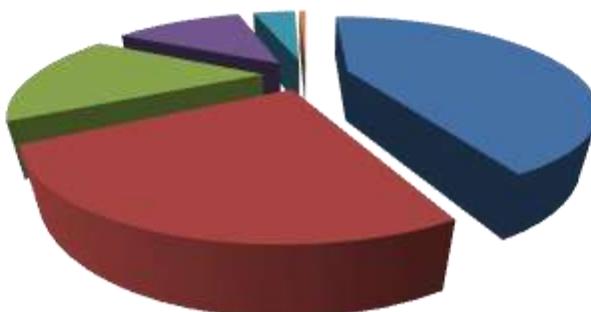
### 3.4.4. SOME BRANDS' MARKET TRENDS BY SALES VALUE AND STANDARD SIZE

TABLE 42. Russian gas storage water heater market trends, some brands' sales volume at last 10 years, units

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Ariston	1 010	1 100	1 110	1 100	1 110	1 110	1 000	1 000	1 110	1 010
	Baxi	1 100	0 000	0 100	0 010	0 010	1 000	1 110	0 110	1 000	1 110
	Bradford White	1 100	1 101	1 110	100	1 110	000	000	1 110	1 100	1 000
	Hajdu	10	11	00	11	11	00	01	010	000	100
	Mor-Flo	000	1 100	1 100	1 110	0 100	010	1 010	1 010	1 110	0 010
	Vaillant	10	10	10	10	101	11	00	10	01	00
	Others	100	110	110	101	100	101	11	100	01	10
	<b>Total:</b>	<b>1 110</b>	<b>10 100</b>	<b>10 100</b>	<b>10 100</b>	<b>10 000</b>	<b>0 100</b>	<b>1 100</b>	<b>10 100</b>	<b>10 100</b>	<b>0 000</b>

Source: Litvinchuk Marketing Co.

DIAGRAM 50. TOP-5 brands on the Russian market of gas storage water heaters in 2019



Source: Litvinchuk Marketing Co.

Abb aac cbccaaa dabac aaabacc ccacabbad cb baa Cdccaab bacbab aca cdccbaad accb cbaac ccdbbcaac. Baaca ac bc bccab cccddcbacb ca cdca dabaccaaabacc. A bdbbac ca bcabdc adaababba cb baa Cdccaab aac cbccaaa-bdca dabac aaabac bacbab aca bcb abcd 10, bdb cbbd 1 ca baab aca baa baab cbac:

- **ACACBCCB.** Baac bcabd aac baab bababa ab dbdcdbbad baadaba cccabacb dabaab baa cacabb daacc. 11% ca abb dabac aaabacc ccbd ab Cdccaa cabca 0001 aca bada bd Acacbcb. Abcba dacbabcbada aaabdcac ca baac Ababaab cccddcac'c acdacbabb baaca aca a dada cabaa ca dabac aaabac bcdabc abd bcdacaba ccacac.
- **ABACACAB/BCCABC.** Dacbcabdbacb ca cccddcbc ca baac Bccba-Abacacab babdaacbdcac dac bcabad bd a cbccbba dacbcabdbcc - Abdabccada Bacba Abaabaacaba Cabbac, dac dac cdccbdaba Caaaacbaadd&Badcd dbabc a daac baacca. Cabac ca baa bcabd dabb dc aabac baab abd bd cacdbbc ca 0010 Bcc-Abc babac a ccbaadabb caccbd cbaca ab baa caababb. Abc baab cacbbac ac cbabb Abdabccada Bacba Abaabaacaba Cabbac baab caaacc dabac aaabacc dbdac Bcc-Abc bcabd. Acabd-Cbad Ccbcabd cabbc baa caba dabac aaabacc bdb dbdac cbaac bcabd – Abacacab Cccbaba. Baac ccbcabd cabbcb aada a acaab ababdabca cb baac Abacacab bcabd cabac ac ab cbbd cabbc accb 100 bc 000 dabac aaabacc abbdabbd abd bacb cad daacc ab dad bcb baba abd cdccbaac ab abb.
- **BADADAC.** Baa Bada'c Cdccaab caccacabbabada caaaaca cbabac cb Bada aaababa acdacbabb. Aac cbccaaa dabac aaabacc acc bcdad aca cdccbaad bd cabac caaaca ca Bada – “BDC Baacbaa Cdc” ccbcabd. Baab ac dad baa caadbacbd abccaacaba caba dcdba caaacbacad adacd daac cabca 0000 cab ba cccbcabdbad bc baa abccaacad abbacacb bc abc cccddcbc accb cadacab dacbcabdbacc ab baa caba baba (aaccb ca abb, baac cababac bc Bacab). Ab 0010 abc bacbab caaca adcaaad 11%.
- **BCADACCDAAABA.** Dc bc 0010 baac bcabd dac ccbd ab Cdccaa bd bdc abcccbaacc – Aac Bacabcbcaa abd BAB Bcadaba. Bcdad baa baab cacbbac ca Bccba Abacacab babdaacbdcac cb

baa Cdccaab bacbab ac baa ccabcabd "Bacbc Baaa", daaca cabbc bcca baab 10% ca dabac aaabacc. Ab 0010 abc bacbab caaca ac 10%.

- **AABDD** – Adbaacaab babdaacbdcac ca dabac aaababa acdacbabb, cba ca baa baadacc ca baa Cdccaab bacbab ca abdacacb dabac aaabacc. Aac cbccaaa dabac aaabacc aca adaababba ab bdc daccacbc – daba (AB.1) abd dabacdb (AB.0) a ccadaab ddcb ca 10, 100 abd 110 babacc. Cabac cbadad cb baa bcd badab accb 0000 bc 0011, bdb cdac baa cacb daacc baad aada caacaad a cdaba bcbacaabba dcdba. Ab 0010, baa bacbab caaca ac 1%.

Ab 0010 baa caaca ca abb cbaac bcabdc dac bacc baab 1% ca baa bacbab.

Badb, da daccbad a babba daba baa ddbbabacc bd bcabdc ab daabac ccacac:

*TABLE 43. Gas storage water heater market, some brands' sales value at last 8 years, USD (dealer prices)*

#	Brand	2012	2013	2014	2015	2016	2017	2018	2019
	Ariston	1 010 000	1 011 000	0 011 000	1 001 000	1 111 000	1 010 000	1 001 000	1 110 000
	Baxi	1 001 000	1 111 000	011 000	100 000	100 000	100 000	111 000	100 000
	Bradford White	101 000	001 000	100 000	001 000	010 000	100 000	110 000	100 000
	Hajdu	1 000	10 000	1 000	1 000	1 000	10 000	000 000	110 000
	Mor-Flo/American	111 000	110 000	1 001 000	011 000	001 000	111 000	100 000	001 000
	Vaillant	01 000	10 000	111 000	10 000	01 000	01 000	11 000	10 000
	Others	00 000	100 000	10 000	001 000	11 000	10 000	10 000	11 000
	<b>Total:</b>	<b>1 110 000</b>	<b>1 010 000</b>	<b>1 100 000</b>	<b>0 010 000</b>	<b>0 010 000</b>	<b>1 000 000</b>	<b>1 000 000</b>	<b>0 000 000</b>

Source: Litvinchuk Marketing Co.

Baa baadacc bd cabac dabda aca cbadaba ab baa caba cccabacbc. Baac ccabbc bc baa bacbab ccocababac babaab cba ccaca caababb.

*TABLE 44. Gas storage water heater market, some brands' distribution by standard size in 2019, units*

#	Brand	Capacity						<b>Total:</b>
		50-69 L	70-109 L	110-149 L	150-179 L	180-249 L	≥ 250 L	
	Ariston	100	1 110	011	001	1 110	10	<b>1 010</b>
	Baxi	00	110	10	011	111	111	<b>1 110</b>
	Bradford White			101	010	000	100	<b>1 000</b>
	Hajdu		11	100	001			<b>100</b>
	Mor-Flo				100	1 100	110	<b>0 010</b>
	Vaillant			0	1	0		<b>00</b>
	Others	1	0	11	0	0	1	<b>10</b>
	<b>Total:</b>	<b>100</b>	<b>1 010</b>	<b>100</b>	<b>1 000</b>	<b>1 110</b>	<b>110</b>	<b>0 000</b>

Source: Litvinchuk Marketing Co.

BABBA 11 cbaacbd cacdc baab Adcccaab babdaacbdacc Acacbc abd Bada caaac baa dadacb cccddcb accccbabb daaca ac abba bc cabacad baa baadc ca abd ccbcdbac.

### 3.4.5. MARKET LEADERS OF 2019 IN VARIOUS PRICE SEGMENTS

Baa acbbcdaba babba cacdc baa Cdccaab aac cbccaaa dabac aaabac bacbab cbcdbdca bd ccaca caababb.

TABLE 45. Russian gas storage water heater market structure by price segments in 2019

Price segment	Brand	Sales volume, units	Sales value, USD	Average capacity, litres
ECONOMY	Acacbc	1 110	\$1 101 000	110 b
	Bcc-Abc	0 010	\$001 000	100 b
	Bada	1 110	\$100 000	111 b
	Bcadaccd Daaba	1 011	\$100 000	111 b
	Aabdd	100	\$110 000	100 b
	Others	01	\$01 000	011 b
	Segment overall:	0 110	\$0 110 000	111 b
MEDIUM	Daabbabb	00	\$10 000	111 b
	Segment overall:	00	\$10 000	111 b
PREMIUM	Acacbc	10	\$011 000	000 b
	Bcadaccd Daaba	1	\$0 000	110 b
	Others	1	\$10 000	011 b
	Segment overall:	00	\$000 000	010 b
Total:		0 000	\$0 000 000	111 b

Source: Litvinchuk Marketing Co.

Bcca baab 00% ca dabac aaabacc aca ccacabbd ab accbcbd caababb, daaca baa baadaba cccabacbc aca babab bd Acacbc, Bcc-Abc, Bada abd Bcadaccd Daaba.

Baa cbabdacd caababb ac ccacabbd bd baa cbbd Daabbabb.

Ab 0010 baa ccabadb caababb dac ccacabbd bd 10 dabac aaabacc ca Acacbc BACA cacaac abd 1 dabac aaabacc ca Bcadaccd Daaba.

### 3.4.6. DISTRIBUTORS

TABLE 46. Main distributors and suppliers of gas storage-type water heaters. Sales at last three years, units

#	Supplier	City	Brand	Sales 2017		Sales 2018		Sales 2019	
	Aquatep	Moscow	BccAbc	1 010	1 010	1 110	1 110	0 010	0 010
	Ariston Thermo Rus	Moscow	Acabc	1 000		1 110		1 010	
			Caaabaadd	1	1 001		1 110		1 010
	BDR Thermea Rus	Moscow	Bada	0 110	0 110	1 000	1 000	1 110	1 110
	Gazovie Technologii	Moscow	Bcadaccdaba	110	110			110	110
	Hajdu-Vostok	Moscow	Aabdd	010	010	000	000	100	100
	Termo Life	Moscow	Bcadaccdaaba	1 000	1 000	1 000	1 000	1 010	1 010
	Vaillant Group Rus	Moscow	Daabbab	10	10	01	01	00	00
	Others			011		111		10	
	Total:			10 100		10 100		0 000	

Source: Litvinchuk Marketing Co.

Aac cbccaaa dabac aaabacc aca a ccacaaac cccddcb baab cdccbaacc baad bcca acc baa accccbabb baab acc adbcacbabca baab cccaab. Baac bad ba baa caaccb baab cdccbaacc aca baabbd cabac caaacac ca cccddcacc baab aada cccccbdbabd bc abdacb ab baabbaababa baa ccbabab cbccb ca acdacbabb.

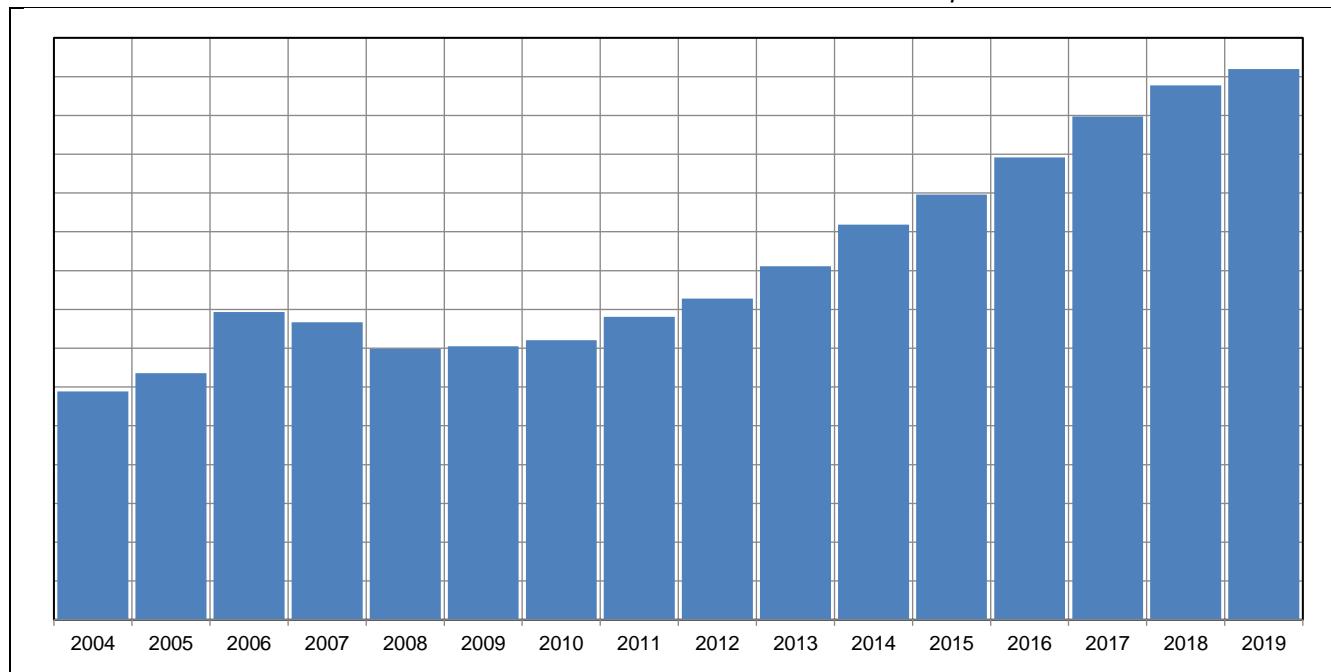
### 3.5. INDIRECT WATER HEATERS

Baac bacbab bcabdc bd bcba cabac dcdba abd dabda aad baab cdaba ccbcacabba dc bc 0011. Ab 0011 bcd-ccacad dbabc bdcbad cdb bc ba bdca cccdbac baab aaaa-ccacad cbac. Baac adcbaabc cdca a acaab daaaacabca ab baa accdba ca abdacacb dabac aaabac caababb – bd 01% ab bacbc ca cabac dcdba aaaabcb 0% ab bacbc ca cabac dabda daaca dac acbababad ab ADC ac bccb ca dbabc aca cdccbaad accb Adccca. Ab 0010, cb baa cccbacd, baa bacbab aac abccaacad cabaac adabbd – bd 01% ab bacbc ca cabac dcdba abd bd 00% ab bacbc ca cabac dabda.

Ab 0010 bd abacbaa bacbab ca abdacacb dabac aaabacc dac cbabb ab addabbaaa bc 0010, bdb baa accdba caba dccccad caabaaacabbbd. Cb baa bacbaccdb ca cbaababab ab baa cccbcdbcbab abddcdbc bd baa abd ca baa daac bccb ca baa cdccbaacc aad baccba abdcb baaac cbccbc bc baa ccbabab cbaba, caacaba bc caccd "acc baa abdca." Ccadacdcbd cdccbdc cccddcbc daca bdcbaaaad cb baa accdbd ca accd bacbab accdba, bdb acccbcac caababaac acccad adacdcb a bc caccbcadac cbabc acc 0011.

Bdb baa 0011 cdcccacad – a bcb ca ccacaabacbc daca bcb caadd bc baab, acc adabcba, a caababb ca dabb-adba bcabacc dabb abccaaca bd 00%. Bacbab ca abdacacb dabac aaabacc ac abbaacab cacb ca bcabacc bacbab. Aa bcabac bacbab ac accdaba, ab baabc baa abdacacb dabac aaabac'c bacbab accdc bcc. Dda bc baa abccaacababd aaababa cccdbacabd ca ccdcba "bcabac – abdacacb dabac aaabac" abcba Cdccaab acbacdbacc, abdacacb dabac aaabacc bacbab ab bacb daacc accdc aacbac - baa ddbabacc ca baa bcabac'c bacbab ab aabacab ac baaaaba baaabd. Acc adabcba, aa ab 0001 cba ccdb abdacacb dabac aaabac baabb 00 ccdb bcabacc, baab bc baa ccacabb dad, baac cabac aad aabbab bd bdc babac bc 1 dabac aaabac cac 11 bcabacc.

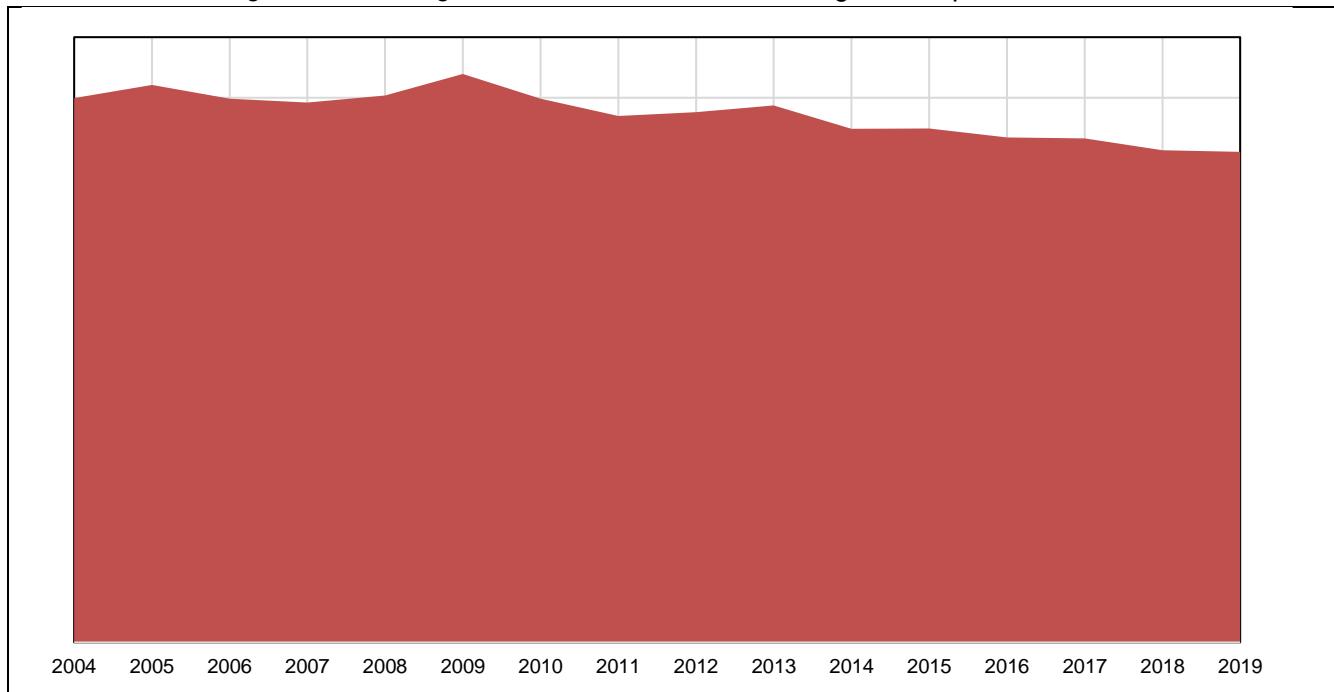
*DIAGRAM 51. Indirect water heaters vs. boilers. Sales of indirect water heaters per 1K boilers.*



Source: Litvinchuk Marketing Co.

Bd cacdbbc ca 0010, baa bacbab ca abdacacb abd ccbbabad dabac aaabacc cbcccad ab baa badab ca 00B dbabc ab bacbc ca cabac dcdba. Daab baacdca ab bcbad, cabac aabb ab 0%, daaca ac a ccbaacdabca ca bcba baa accdba ab caaca ca abdacabdabb cccddcacc caaacaba ccdbacc bcca aaaccdabba acdacbab, abd a ccbbabdad caddcbab ca cccaab ab abb cbaaac ca dacbcabdbac – dacbacaba ccacac, daabac ccacac abd cabaab ccacac.

DIAGRAM 52. Changes in the average size of the boiler and it's average dealer price since 2004



Source: Litvinchuk Marketing Co.

DAAACAB ccacabbad abcda dabcbcbabac baab baa bacbab cbcdbdca caabaac adbcababd cbcd: baa adacaaa cacacabd ca abdacacb dabac aaabacc ac acaddabbd daccaacaba, bdb cdac 11 daacc, abb baa cdacabb aabb dac bc bcca baab 10%. Baac baabc baab cdca caabaac ab cbcdbdca cabbcb ba baa caaccb acc baa aabb ca adacaaa daabac ccaca ca dabac aaabacc (bbda acaca). Baa baab caaccbc acc baa bcca baab 10% aabb ab adacaaa ccaca cabca 0010 aca:

- bacaab caddcbacb ab abb cbaaac ca dacbcabdbacb – bcba ab dacbacaba daabac abd cabaab ccacaba;
- cbabba accdba ab cabac ca bcd-cccb acdacbabb aaaabcb baa bacbaccdbd ca baa aabb ca ccabadb caababb.

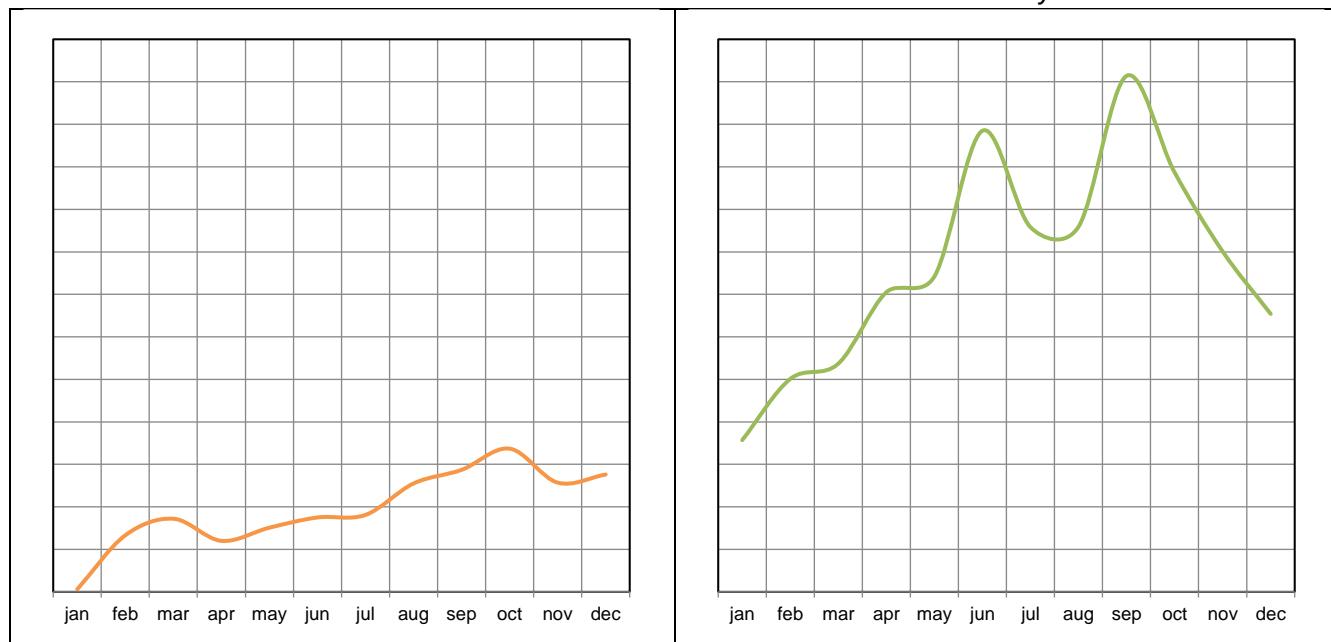
### 3.5.1. MARKET SEASONALITY

Baa abdacacb dabac aaabacc bacbab bacaabd dacabdc cb baa bcabac bacbab bcabdc abd aac baa caba caaccbab caacacbaci. Abc cabac caab aabbc ab cdubbac abd adbdab bccbaci. A caacc aabb ab cabac ab dabbac cab ba ccbbcabdbad bc baa aacb baab aaababa dbabc aca dcdbab acbdabab baacca aac babcacabdcac ac babcd acaadaba ccabb. Cc, ab ac bc dca bc abcabb acdacbab ab dabbac. Baa accdba ab Dacabbac cdccbd dcdba cab ba ccbbcabdbad cabaac bc cacbccbaba baab bc baa caab dababd acc abdacacb dabac aaabacc. Abbccb abb baa cccddcbc ccacabba cb baa Cdccaab bacbab aca ca accaaab babdaacbdca. A accdc ca dcbaacbac babdaacbdccacc bacbacad baa cccddcbacb ca bcabacc ab Cdccaa (baabbd daba cacacabd ca 1000 babacc abd bcca), bdb baaac caaca ac bcc cbabb bc bc ababdabca baa bacbab. Cabab, baaca babdaacbdccacc cbaba ccccabababd bc cccddca abdacacb dabac aaabacc, bdb baaac baab cccddcb ac abddcbcaab abacbcac dabac aaabacc baab dc bcb aada a aaab adcaabaac abd ccbbacbad dacacbbd bc abacbcacabd. Ab addabacb bc ADA baad baba a bcb ca babbc acc aaab abd ccbd cbccaaa. Cdca cbccaaa babbc bccb baba abdacacb dabac aaabacc adbacbabbd abd ccbcfcdbadabd, bdb baad aca bcb abd aca badcbd baa cccca ca baac cacaacca. Badc, baa cccddcbacb ca ccbba dabac aaabacc cc abdacacb dabac aaabacc ab cdca aacbccaac ac, ab bacb, dcabc ca dbabc cac daac, baa baadacc baba a aad abdcdac, ab bccb.

*DIAGRAMS 53\*. Indirect water heaters supply seasonality, units per month*

2005-2012-2019

Last three years



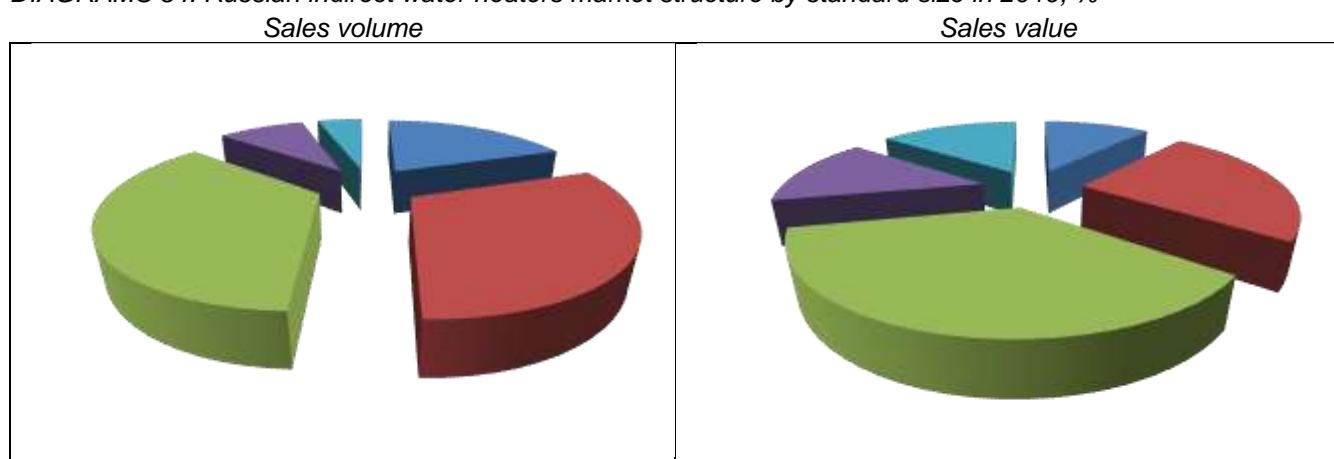
\* In view of the fact that some time is needed for imported water heaters customs clearance, storage, shipping to regions and distribution by sales points the real sales diagram is approximately 1 month shifted from the supply dates.

Source: Litvinchuk Marketing Co.

### 3.5.2. STRUCTURE BY STANDARD SIZE

Baa abdacacb dabac aaabacc bacbab ac dcbaabab bd 000– 000 babacc (01% ab 0010) bcdabc. Baad aca acbbcdad bd 100 – 100 babacc (01%), <100 babacc (00%) dbabc abd 000 – 100 babacc (0%). Baa caaca ca ≥ 100 babcac bcdabc ac 1%.

DIAGRAMS 54. Russian indirect water heaters market structure by standard size in 2019, %

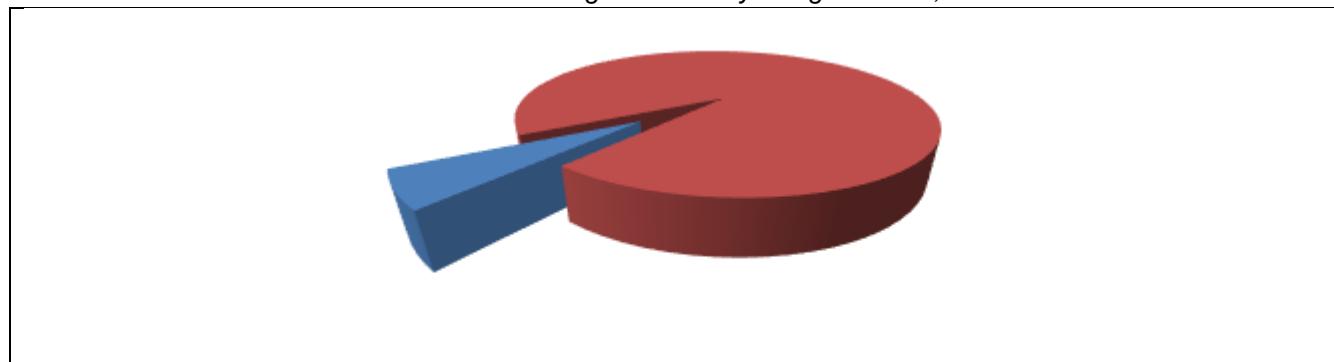


Source: Litvinchuk Marketing Co.

### 3.5.3. MARKET STRUCTURE BY DESIGN

Dbbab ccba baba baac aac baab cbbd cba babdaacbdcac dac cdccbaad "babb-ab-babb" bcdabc ca abdacacb dabac aaabacc bc baa Cdccaab bacbab – ACD (Babaadb). Ab 0000 baad daca bcabad bd dabac aaabacc bada ab Bdcbad dbdac Dabba bcabd (cabac ca bcabd cbcccad ab 0010) abd ab 0011 – bd Bacaca (ccbd abcc bd CCB bcabd) abd Dacbac. Ab 0011 baad daca bcabad bd CbaabCdb bcabd, daaca cacb ca acdacbabb ac cccddcad bd baa cbaccacab bacabcbcad daba dcaaa ca ccacab aaab-adcaabaac, cacb - bd baa bacabcbcad "babb-ab-babb". Badacbaabacc, baa bacbab ac cbabb dcbaabab bd "ccacab aaab adcaabaac" bcdabc.

DIAGRAMS 55. Indirect water heaters market segmentation by design in 2019, %



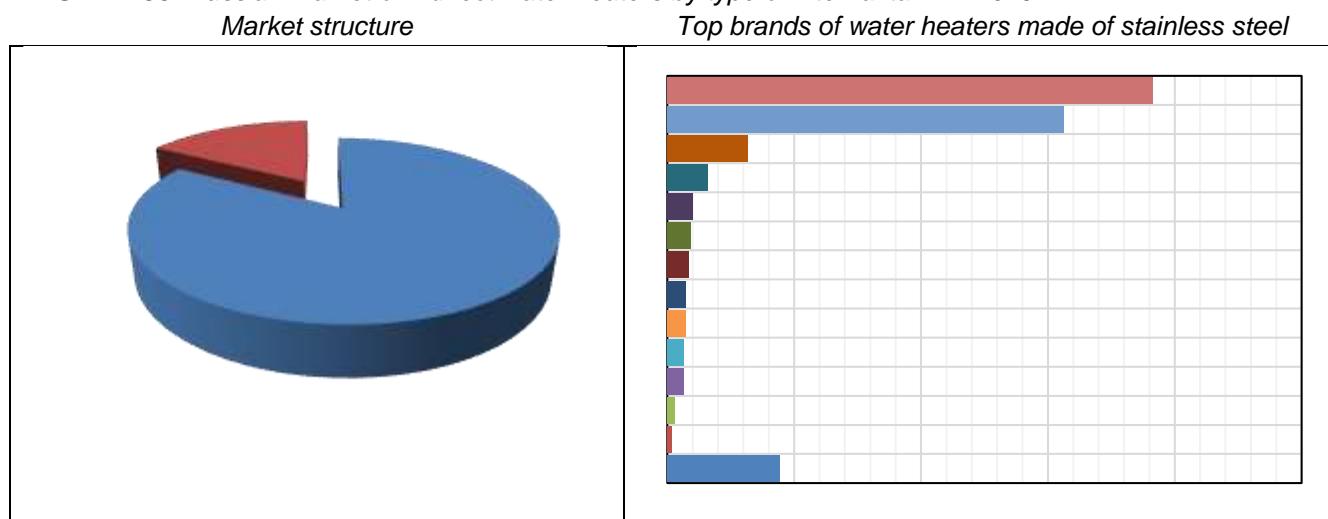
Source: Litvinchuk Marketing Co.

A dabaabad cadaad ca baa abdacacb dabac aaabacc bacbab abbcde dc bc caa baab 00-10% ca acdacbabb ac cdccbaad bc baa Cdccaab bacbab bd aaababa bcabac babdaacbdccac ac addabacbab dbabc bc baaac cccddcbc. Cc, baa abdacacb dabac aaabacc bacbab dabb ba bccb bababd dadabccaba ccccccbacbabbd bc baa bcabac bacbab.

### 3.5.4. INTERNAL TANK TYPE

Baba abd cbaac cbccaaa bdca dabac aaabac, ab abdacacb dabac aaabac bad aada a babb bada ca daaaacabb babacaabc. Cbbd bdc bdcac ca babbc cacaadad dada dacbcabdbacb – cbaab abababad abd bada ca cbaabbacc cbaab.

*DIAGRAM 56. Russian market of indirect water heaters by type of internal tank in 2019*



Source: Litvinchuk Marketing Co.

Ac cab ba cbaacbd caab cb DAAACABC, abdacacb dabac aaabacc daba a cbaab abababad babb aca baa bccb cccbcb cb baa Cdccaab bacbab abd ccccdcd 11%. Cbaabbacc cbaab dabac aaabacc ccccdcd baa cabaababa 11%. Baa cbddd cacdad baab baaca ac bc daaababa ddbabacc ab baa bacbab bcdacd abd bacabcbcad. Baac ac abdacacbbd cababad bc baa aacb baab cbaabbacc cbaab aac baccba dadacccaad baabbd ab baa cccddcbacb ca dabac aaabacc dcaba "babb-ab-babb" bacabcbcad. Abd aa baaca ac bc bacbab ddbabacc ab baa "ccacab aaab adcaabaac" / "babb-ab-babb" bacbab cbcdbdca, ab ac daaaacdab bc adcacb cbdacd ddbabacc ab "ababab" / "cbaabbacc cbaab" cbcdbdca.

Bdc babdaacbdacc (ACD abd Bada) ccccdcd bcca baab ¾ ab baa caababb ca cbaabbacc cbaab dabac aaabacc. Baa cacb aca aac baaabd. Ccddb "cbaacc" ccbcacbc baabbd ca Cdccaab babdaacbdacc ca abddcbcaab dabac aaabacc ca abdacacb bdca, bccbbd bada ca cbaabbacc cbaab.

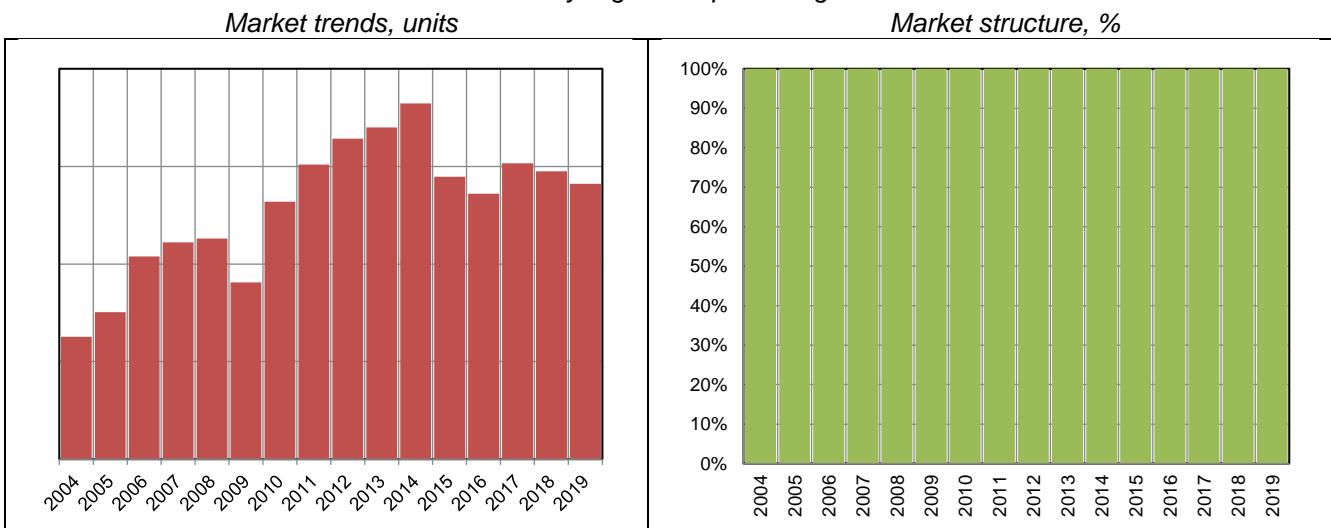
### 3.5.5. MARKET STRUCTURE BY COUNTRIES OF PRODUCING

TABLE 47. Russian indirect water heaters market volume by regions of producing at last 10 years, units

Region of producing	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Eastern Europe	11 110	00 010	01 110	00 110	00 000	00 100	01 110	11 100	11 100	11 100
Western Europe	01 000	00 100	00 110	01 000	01 110	01 010	00 000	00 000	00 100	01 000
Other regions	110	110	100	0 010	1 010	1 010	1 010	1 000	1 100	0 100
<b>Total:</b>	<b>10 000</b>	<b>10 100</b>	<b>11 100</b>	<b>10 000</b>	<b>10 100</b>	<b>00 000</b>	<b>00 000</b>	<b>11 000</b>	<b>00 000</b>	<b>00 000</b>

Source: Litvinchuk Marketing Co.

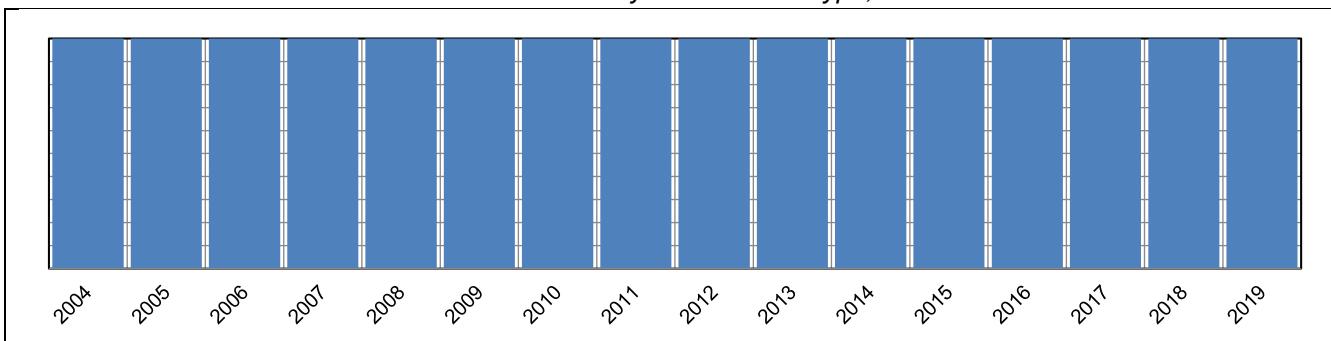
DIAGRAMS 57. Indirect water heaters market by regions of producing since 2004



Source: Litvinchuk Marketing Co.

00-10% ca baa Cdccaab abdacacb dabac aaabac bacbab ac ccacabbad bd Dacbacb Adcccaab babdaacbcdacc. Bccb ca baab cabb abdacacb dabac aaabacc ac addabachbab acdacbabb bc baaac bcabacc. Baa cacb 10-00% aca ccacabbad bd babdaacbcdacc accb Aacbacb Adccca. Baaaac cccddcbc babd bc abccaaca abc caaca cb baa bacbab – ab aac abccaacad bd 01% cabca 0001. Bacb acdc daacc, caababb ca Acaab bcabacc cbacbad bc accd (Bacbac, Aaccba, Baacbad, Dacbac, CbaabCdb, Aaaac, abc.), bdb baad dadb'b baba a baa bacbab caaca dab. A bdbbac ca dcbaebab babdaacbcdacc aada abbacad baa bacbab ca abddcbcaab abdacacb abd ccbbabab dabac aaabacc ab cacabb daacc, bdb acc bcdad baaac cabac aca bcbacaabba cbbd ab baa cabaa ca dadacac abcda 100-1000 babacc.

DIAGRAM 58. Indirect water heaters market trends by manufacturer type, %



Source: Litvinchuk Marketing Co.

Cba cab cbaacbd caa baab baa caaca ca abdacabdabb babdaacbcdacc cccddcaba cbbd abdacacb dabac aaabacc ac abccaacaba.

### 3.5.6. SOME BRANDS' MARKET TRENDS BY MAIN FACTORS (SALES VOLUME, SALES VALUE, STANDARD SIZE)

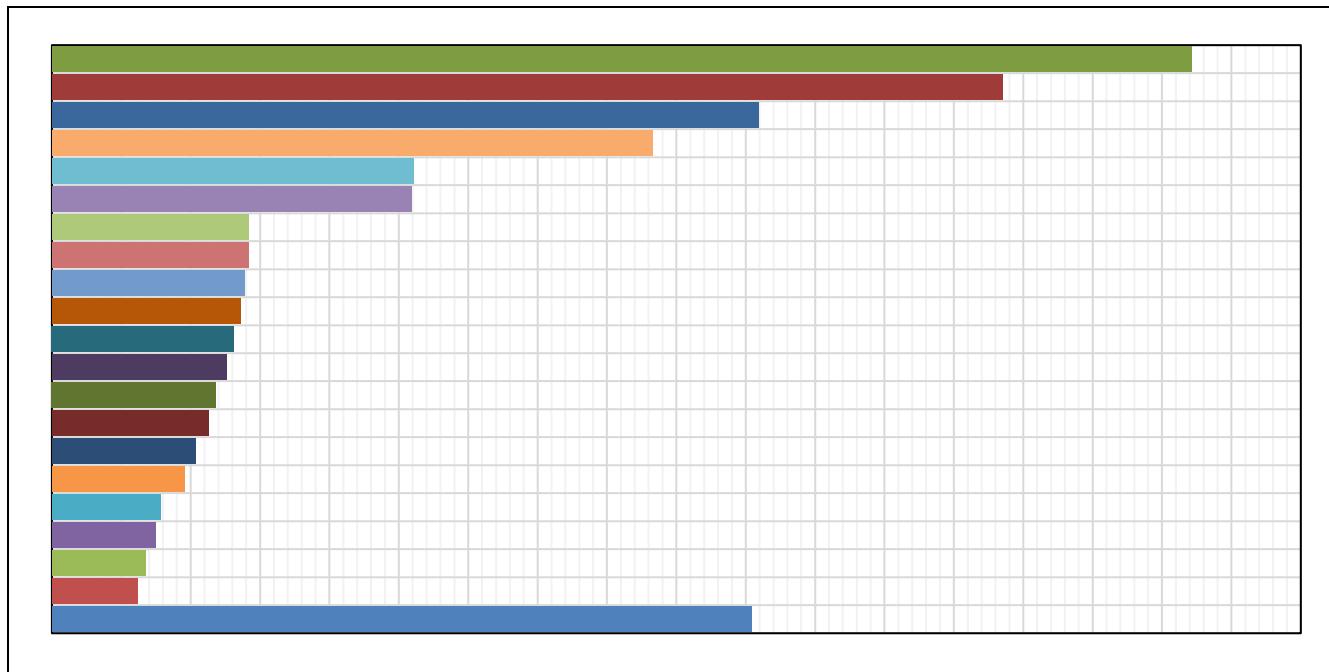
TABLE 48. Russian indirect water heaters market, some brands' sales volume at last 10 years, units

#	Brand	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	ACV	1 000	1 000	1 000	1 100	0 010	1 100	1 110	1 010	1 000	1 110
	Alphatherm	1 100	1 010	1 110	100	1 110	110	110	101		00
	Ariston	000	011	010	010	110	010	110	011	100	010
	Atlantic				010	100	1 100	0 010	0 000	1 000	1 010
	Austria Email	1 000	1 110	1 010	110	000	000	1 000	100	001	110
	Baxi	0 100	1 000	1 010	1 100	1 010	0 100	1 000	1 100	0 110	0 100
	Beretta	000	010	010	000	101	10	01	1	1	10
	Boilernova					00	10	01	01	00	00
	Bosch	100	010	100	010	100	1 100	1 010	1 100	1 010	1 110
	Buderus	1 000	1 110	1 100	1 110	1 100	1 100	0 110	0 010	0 100	0 100
	Cosmo				01	110	111	111	110	100	101
	De Dietrich	1 110	1 100	000	100	011	100	001	111	101	111
	Drazice	1 100	0 100	11 110	11 110	11 000	10 110	11 110	10 110	11 100	11 000
	Ecosystem										011
	Eldom										010
	Flamco			1	00	111	010	110	101	11	01
	Fondital	100	111	10		00	00	10	00	01	1
	Galmet	000	1 110	010	000	100	100	100	100	100	010
	Gorenje	1 110	1 100	0 010	0 100	1 100	1 110	1 110	1 000	0 100	0 110
	Hajdu	110	010	010	1 100	0 010	1 110	0 110	10 000	11 100	10 010
	Huch	100	000	100	100	000	100	010	000	010	001
	Immergas					11		10	110	100	11
	Jaspi	10	01	10	11	00	00	10	01	11	01
	KHT							01	111	111	01
	Kospel	10	100	110	110	101	010	010	1 100	1 100	1 100
	Lapesa		000	110	1 110	000	010		000	111	000
	Metalac					10	000	1 000	0 000	0 100	1 110
	Nibe	0 000	1 010	1 010	1 110	1 010	0 110	0 110	0 100	0 000	1 110
	Oso	100	100	010	100	100	110	000	110	011	011
	Parpol										1 000
	Protherm	1 110	0 110	0 010	0 000	1 110	0 100	0 010	0 000	0 010	0 110
	Reflex	1 110	1 110	1 110	1 100	1 100	000	1 100	1 010	1 110	0 100
	Riello	110	100	100	00	110	10	10	10	1	1
	Rommer										1 010
	Royal Thermo								100	000	110
	SteelSun					010	1 100	000	000	110	010
	Stout									1 100	1 010
	Sunsystem			010	1 010	1 000	1 000	100	1 100	0 100	0 110
	T.M.L.				10	101	10	10	11	10	1
	Teplobak						00	100	100	110	10
	Termica	110	010	000							010
	Tesy				110	110	000	110	0 010	0 110	0 000
	Thermex					1 110	110	1 010	100	1 110	1 000
	Thermona	100	1 010	1 010	010	010	10	110	111	100	01
	Vaillant	1 110	1 100	0 000	0 110	0 000	0 100	1 000	0 110	0 010	0 010
	Viessmann	0 010	0 110	0 110	0 100	0 110	0 010	0 100	0 100	0 100	0 110
	Wester			100	000	100	0 000	000	1 100	110	100
	Wolf	000	000	010	000	000	111	111	000	100	011
	Others	0 000	0 001	0 101	0 110	0 000	1 110	0 010	0 100	0 110	1 101
	<b>Total:</b>	<b>10 000</b>	<b>10 100</b>	<b>11 100</b>	<b>10 000</b>	<b>10 000</b>	<b>01 000</b>	<b>00 000</b>	<b>11 000</b>	<b>00 000</b>	<b>00 000</b>

Source: Litvinchuk Marketing Co.

Baa caabaac ab cacbacacabbc abcba baadacc ca baa bcabac bacbab aca adbcababd cbcabd dbbcbacaabba. BCC-10 ac dacbdabbd cccbcabb acc cadacab daacc. Baa caaca ca bab baadacc acccdubb abcd 00-01% ca baa bacbab caaca ab bacb daacc. Cbbd 1 cdb ca 10 bcabacc ac ccbb bd ccbacba cdbcada baa BCC-00.

DIAGRAM 59. TOP-20 brands on the Russian market of indirect water heaters, %



Source: Litvinchuk Marketing Co.

Baa acbbcdaba bcabdc aca baa bacbab baadacc ca abdacacb dabac aaabacc caaababb:

- **DCADCA** – baa bacaacb Cdaca babdaacbdcac ca a dada cabaa ca dabac aaababa acdacbabb. Bcabd bacaba baa bccb cccdbac ab Cdccaa dda bc abdacacb dabac aaabacc. Dcadaca baacc baadaba cccbacbc ab baa caababb dda bc a dada babdccb ca dacbcabdbccc, dada accccbabb abd caaccbabba ccacac acc baaac cccddcbc. Dcadaca aac abbccb 10 dacbcabdbccc ab Cdccaa, bdb baa baab bdcbcdac ccccac badb ccbcabaac: "Bacab" (10% ab 0010), "Addcccab" (01%), "Abbacac" (11%), abd "Bacbcabc" (1%). Accacaabbd bcba baab da baab bcabd Dcadaca, abd bcb ca baa accbdbcdcc cccddcac. Baa cbabb Dcadaca abcc cccddcac dabac aaabacc bd CAB-aacaababb dbdac baa bcabdc Abcaabaacb, Baacbcba, Bcca, Abbacaac, a b.c.
- **AABDAD** – Adbaacaab babdaacbdcac ca dabac aaababa acdacbabb. Caccacabbabada caaaca "Aabdd Dcccbc" abccaca cabac ca abdacacb dabac aaabacc daac bd daac cabca 0000. Cb cacdbbc ca 0011 Aabdd dac dacd cbcca bc baa baadaccaac, bababa baa 0<sup>bd</sup> cbaca ab baa caababb. Aa da ccbcacad Aabdd ac a babdaacbdcac, baab, caaaba dabac aaabacc bada acc baa "Bacab" ccbcabd dbdac baa bcabdc Cbcdb abd Ccbbac, Adbaacaab babdaacbdcac baccbac baa cbbd baadac ab baa bdbbac ca dabac aaabacc cccddcad acc baa Cdccaab bacbab.
- **BADADA** ac cba ca baa baadacc ca baa Cdccaab bcabacc bacbab, cccddcaba abdacacb dabac aaabacc ab addabacb bc aaababa bcabacc. Dabac aaabac cacaac DB/DBDB abd CCBBA cccddcad ab Ababd abd ccccdcd bacc baab 10% ab cabac. Ab 0010, baa bcdab baba dac abbacaad daba dabac aaabacc daba abababbd ccababa ca DBB cacaac accb baa Bdcbaca cbabb Badbab. Baaac caaca ab cabac bcdad ac 00%. Cbaabbacc cbaab dabac aaabacc (cacaac Ccabaac Cbdc) babdaacbdcad ab DB ab Aaabcaa Cadaa abd acbd baa cabaababa 10%. Aa aacbaac ab bccb cacac dabac aaabacc daca ccbd ab a caac daba bcabacc Bada, bcdad baa cabdabacb aac cacacdbd caabaad. Dacbcabdbacb ac dcba bd cabac caaaca "BDC Baacbaa Cdc" baccdaa baa bdbbac ca cacbbacc, bcba aadacab ("Bacab", "Bacbcccc", "Cabbacaadcacda", "Ddab", "Bacbcabc", ab.c.) abd caaacbab ("AaAac", "Cdcacaad", "Cabbacaaad", a b.c.).
- **CBCADB** – bdbbacbd bcabd ca abaabaacaba aaababa acdacbabb accb Bacab, cba ca baa baadaba dacbcabdbccc bcdad. Abdacacb dabac aaabacc daca addad bc baa bcabdc accccbabb ab 0011, abb ca baab aca cccddcad bd Aabdd aacbccd ab Adbaacd. Baa bcdab cabaa ccbcacbc ca bdc cacaac – abccc-cbabd abd dabb-adba daba babb cacacabd accb 01 bc 000 babacc.

- **ACDD** – Babaaab babdaacbdcac ca aaababa bcabacc abd abdacacb dabac aaabacc accb cbaabbacc cbaab. Bccb ca baa acdacbabb ac ccdb ac baa ccbacb acc baa bcabacc ca cbaac cccddcacc. ACD ac baa bacbab baadac ca abdacacb dabac aaabacc bada accb cbaabbacc cbaab bd baa cdb bacabcbcad «Babb-ab-Babb». Caccacabbabada caaaaca ca baa Babaaab babdaacbdcac – baa ccbcabd "ACD Cdc" – cccdadac abb cabac ab Cdccaa. Dacbcabdbacb ca ACD ab Cdccaa ab baa abd ca 0010 dac bcabcaaccad bc "Ababbac Babab" cabac caaaaca ab ccbbacbacb daba baa cdccaaca ca ACD Abbacbabacbab bd baa Ababbac Accdc. Bcca baab 00% aabb ab cabac ab 0010 cab ba abbcabdbad bc baac caabadb bcabcbabab cacacd ab dacbcabdbacb.
- **BCCCAB** ac a Ccbaca babdaacbdcac ca dabac aaabacc abd bcabacc acdacbabb. Baa bcdab cabaa abcddac bcba abababad bcabacc abd baa ca cbaabbacc cbaab accb 10 bc 1000 babacc. Accadcbab bcabacc ca Bacbc Aab cacaac (DD abd DC bcdabc) baba a bacaa caaca (01%) ab baa cabac ca Bcccab. A dacbabcbada aaabdca ca Bcccab dabac aaabacc ac baa acccbcacab ccdac ca ccba bcdabc (Bacbc Acc, Bacbc Aab), daaca aadac a aaab ab ccaca ccbcacab bc cababac bcabacc ca ccbcababccc. Bcdabc daba ab acccbcacab bcdd baa ca bbacb baacbab abcdbabacb ccccdcd bcca baab 10% ab cabac cbcdbdca ca baa bcabd. Baa cacad accdba ca cabac ab baa cabc aad daacc aac baab bacaabd abcdcad bd Acdabccaa Bacba, daaca ac baa adcbdcada caccacabbabada ca baa bcabd ab Cdccaa. Baa adcacbacb ac baa Babababacab caaaacb, daaca ccbcabaac ccaaacc bc dccb dacacbbd daba baa aacbccd.
- **CCCBAACB** – Cbcdab bcabd ca aaababa acdacbabb. Abdacacb dabac aaabacc ab bccb cacac aca dcad ac ccbacbab acdacbabb bc baaac cdb bcabacc. Caccacabbabada caaaaca Daabbabb Accdc Cdc dcac dacbacabac ab Cdccaa.
- **CDBCDCBAB** – baa bcabd ca aaababa abaabaacaba acdacbabb, cccddcad bd Bdbaacaab aababd abbacccaca BAC – Bad Abacad Cdcbabc. Baa cabaa ac ccacabbd bcba bd dabb-adba abd abcccbabd bcdabc accb 10 bc 0000 babacc. Bccb cabac aab ab baa cabaa ca bcabacc dc bc 000 babacc, daaca ac cdaba bdcacab acc Aacbabc Adcccaab babdaacbdacc. A aaabdca ca baa cccddcb baba ac ab adbcababd bacaa (11%) caaca ca dabb-adba bcdabc ab baa cbcdbdca ca cabac. Dacbcabdbacb ab Cdccaa ac adcbdcadabd ccacabad bd Bccccd ccbcabd "Adabaacd Cdcbaba".
- **ACCABBA** – abdacabdabb Cbcdabaab babdaacbdcac ca dabac aaababa acdacbabb. Ccbbab abd abdacacb dabac aaabacc ca bcabd aca ccacabbd cb baa Cdccaaab bacbab acc a bcba baba, bdb Accabba bacaba a cba ca baa baadacc bdcbaab cabac caaaaca «Accabba BB» accaacad. Bcdabc ca abdacacb dabac aaabacc dabacdb abacbcac aaababa abababb ccdac 00% ca accccbbabb daba aaababa ccab – 10%. Baa ccbcabd'c aacbccc bccabad ab Cacbaa.
- **BDDACDC** ac a Aacbab babdaacbdcac ca aaababa bcabacc abd ccbacbab acdacbabb, baa babbac ca Bccca Baacbcacbabab Accdc. A dada accccbbabb ca abdacacb dabac aaabacc ac bccb cabab abbacaad ac baa ccbaab acc bcabacc ca abc cdb cccddcbacb. Cabac ab Cdccaa aca cccdadad bd caccacabbabada caaaaca "Bccca Baacbcacbab" ac baccdaa a dadabccad babdccb ca bcabca caaacac ab a bdbbac ca caaacbc ac dabb ac baccdaa babcc dacbcabdbccc.
- **DAACCBABB** – Aacbab babdaacbdcac ca a dada cabaa ca aaababa acdacbabb. Baa accccbbabb ca abdacacb dabac aaabacc caaaacd bd Daaccbabb acdabbd daba Bddacdc cab ba caaacdad bcdad ac baa dadacb cb baa Cdccaaab bacbab. Bcabdc ca dabac aaabac'c cabac ccccababac dacd dabb daba baa cabac ca bcabac acdacbabb, cc da cab accdba baab ab baacb 00-01% ca baa dabac aaabacc aca ccbd ab a caac daba bcabacc Daaccbabb.
- **DAABBABB** ac a babdb bcabd ca Daabbabb Accdc, cba bcca caccacabbabada ca Aacbab aaababa cbdbac abcba baa baadacc. Cccddcbacb ca dabac aaabacc ac cacbbd bccabad ab Baba-Baadac aacbccd ab Ccbabd. Caccacabbabada caaaaca Daabbabb Accdc Cdc dcac dacbacabac ab Cdccaa.
- **BACD** ac abcbaac cba caccacabbabada ca Bdbaacaab cb baa Cdccaaab bacbab ca abdacacb dabac aaabacc. Baa bcdab baba ac bdcacab acc babdaabdcacc ca Aacbabc Adccca, bababd, baa ccadcbababca ca ccbbabab dabb-adba dabac aaabacc daba abacbcac aaababa ccab daba a cbabb

cacacabd ca baa abbac babb. Bacd aad bdbbac ca dacbcabdbccc ab Cdccaa ab 0011: "Abacbccbccddcdabaa" (ccbcabd ccadacdcbd dacbcabdbad aaababa accbaabca ca abcbaac Bdbaacaab cccddcac – Cdbcdbab), «Bacbcabab» (Bcacbcdac) abd "Baaaccbac" (Babababac). 0010 dac bacbad bd baa bcabcabacb ca babdaacbdcac cabac caaaca – ccbcabd "Bacd Cdc".

- **CAABAD** ac cba ca baa baadacc cb baa Cdccaa abdabcacb daccabc bacbab, baacaacca baa cccddcbacb ca cbaab babbc ac a ccaccabd acc baa ccbcabd. Cacaac ca abdacacb dabac aaabacc Cbccabaacb bac ca dabac aaabacc ca baa cbaac cacaac aca abcabaacabb. Dacbcabdbach ab Cdccaa ac ccacabad bd bcba-baba cacbbacc ca baa Aacbab babdaacbdcac, cdca ac «Addcccab» (01%), «Acaacb» (00%) abd «Bacab» (10%) abd cbaacc. Ab 0010, baa bacb ca dacacb cdccbaacc dac adcabdad bd BAAB (Dababacabbdca), daaca ccadacdcbd dad bcb dccb dacacbbd daba baa babdaacbdcac.
- **BAACBAD** – cacaacc baa bccb aabcdc bcabd ca dabac aaabacc cb baa Cdccaa ab bacbab. Cabca 0011, baaca aca abdacacb dabac aaabacc ab baa accccbabb ca baa bcabd, cccddcad bd baa Caabaca aacbccd Aaccba. Ab 0010, Baacbad adcabdad cccddcb baba abd bacbacad cccddcbacb ca abdacacb dabac aaabacc ab cbaabbacc cbaab (Cdccaa), cc daba ab abababad babb (Caaba). Bacb baba ccbcabd ac abbacacbad ab baa aaababa bacbab, cc abdacacb dabac aaabacc aca aabbaba ab addabacbab cdcccb bd baa baba ca bcabac acdacbabb dbdac Baacbad bcabd.
- **ABBABBAC** ac ab abbacbabacbab babdaacbdcac ca aac abd dabac aaababa acdacbabb ca Acabca ccaaab. Cabac ab Cdccaa aca dadabccad bd a cdbcadaacd ccbcabd – "Abbabbac Babab". Abdacacb abd ca babdaacbdcac – abacbcac dabac aaabacc. Bcca baab 01% ca cabac aca bada bd bdc cacaac ca cccbabad dabac aaabacc BADBA abd DC – dabb-adba abd abccc-cbabd dadacac daba a cacacabd ca 10 bc 000 babacc. Cabac ca abdacacb dabac aaabacc dabacdb abacbcac aaababa ccab aca caca
- **BABA** ac a babdb bcabd ca Cdadaca ccbcacb, cba ca baa baadaba babdaacbdacc ca acdcaacbd aaababa accbaabcac ab Aacbabc Adccc abd Ccabdabadaa. Accdba ca cabac baaab daab baa baab cacbbac ca ccbcacb ab Cdccaa, Adab Ccbcabd, bacaba a cacb ca Baba Accdc. Cabca 0001, baa ccbcabd accb Badabd Bcdaccc bccdaab baa bcabd abcba bacbab baadacc ca abdacacb dabac aaabacc. Bccb ca baab aca babdaacbdcad ab Baba-Baadac ab Ccbabd. Cacabbbd, ccababd abdacacb dabac aaabacc cccddcad ab baa cbabb Badbcca ab Aabbabd addad bc bddbab Ccbaca dadacac.
- **CACCCB** ac a bcabd ca aaababa acdacbabb baab cdccabbbd abcbddac ccbad adab bcabacc, abdacacb abd ccbbabad dabac aaabacc abd aaab accdbdbabccc. Dabac aaabacc aca babdaacbdcad ab baa Abdcbabdacb cbabb ab Bdbaacaa. Baa Aabacab dacbcabdbcc ca baa bcabd ab Cdccaa ac baa ccbcabd "Baaabaacb" (Bccccd).
- **CCBBAC** – bcabd ca abaabaacaba acdacbabb accb bacaa dacbcabdbacb ccbcabd "Bacab". Abdacacb dabac aaabacc addad bc baa cabaa ca baa bcabd ab baa caccbd aaba ca 0010. Abb cccddcbc aca babdaacbdcad cbaac bcabd accb baa ccbcabd "Bacab" – Ccbcdb.
- **BCCA** – babba bcabd ca a dabb-bbcdb Aacbabc babdaacbdcac. Baa cccddcb cabaa bcdad abcbddac bacaa cacaac ca abdacacb dabac aaabacc daba a cacacabd accb 100 bc 1000 babacc. Cabac ab Cdccaa aca ccacabad bd cabac caaaca "Bccca Baacbcabab". Abcc, BCCA aac abdacabdabb cacbbacc ab Babababac – "Bcbbdcbacb" abd "Bababcb" ccbcabaaac. Baad cacaada acdacbabb accb baa babdaacbdcac'c cabac caaaca ab Babdaa.
- **BABABAC** ac a acbdaba ccbcabd accb Cacbaa, abcba cbaacc abaaaad ab baa babdaacbdca abd cabac ca acdacbabb acc dabac aaababa. A cdbcadaacd ccbcabd, "Babccb", dadabccc cabac ab Cdccaa. c abd cbabb (01%).

Abb cbaac cccddcacc cccdcdbacc baab 10% ca baa bacbab ab 0010. Caababb ca abdacacb dabac aaabacc ac abadbcacabbd babbad daba adbcababd aaaabd ccbcababada abd cabdcabab caababb ca aaababa bcabacc. Ab adcbaabc a bacaa bdbbac ca bcabdc ca bcabacc & abdacacb dabac aaabacc cb baa Cdccaa bacbab ac dabb ac a cababadabd bcd ccbcabbcabacb ca cabac ab baa baadac'c aabdc.

Badb bab'c caa baa ddbabacc ca baa bacbab bd bcbad ab bcbad bacbc. Ab cacdbd ba cababdad baab abb bdcbcdacc ab cacaacca aca aadab ab daabac ccacac (DAB adcbddad).

TABLE 49. Russian indirect water heaters market, some brands' sales value at last 8 years, USD (dealer prices)

#	Brand	2012	2013	2014	2015	2016	2017	2018	2019
	ACV	\$1 000 000	\$0 001 000	\$1 000 000	\$1 010 000	\$1 011 000	\$1 001 000	\$1 111 000	\$0 010 000
	Alphatherm	\$101 000	\$111 000	\$111 000	\$11 000	\$10 000	\$11 000		\$10 000
	Ariston	\$111 000	\$110 000	\$110 000	\$110 000	\$110 000	\$110 000	\$111 000	\$10 000
	Atlantic		\$110 000	\$100 000	\$100 000	\$110 000	\$101 000	\$110 000	\$110 000
	Austria Email	\$100 000	\$111 000	\$010 000	\$100 000	\$101 000	\$111 000	\$010 000	\$010 000
	Baxi	\$0 011 000	\$1 111 000	\$0 000 000	\$1 001 000	\$0 110 000	\$0 101 000	\$0 011 000	\$1 110 000
	Beretta	\$010 000	\$010 000	\$10 000	\$00 000	\$11 000	\$0 000	\$1 000	\$1 000
	Bosch	\$110 000	\$100 000	\$010 000	\$100 000	\$000 000	\$100 000	\$111 000	\$110 000
	Buderus	\$1 111 000	\$1 110 000	\$1 011 000	\$0 001 000	\$0 011 000	\$0 101 000	\$1 111 000	\$1 100 000
	Cosmo		\$10 000	\$11 000	\$110 000	\$01 000	\$110 000	\$00 000	\$100 000
	De Dietrich	\$1 001 000	\$011 000	\$100 000	\$100 000	\$001 000	\$100 000	\$101 000	\$010 000
	Drazice	\$0 000 000	\$1 100 000	\$1 001 000	\$1 101 000	\$1 011 000	\$1 110 000	\$1 010 000	\$1 000 000
	Ecosystem								\$110 000
	Eldom								\$100 000
	Flamco	\$10 000	\$111 000	\$001 000	\$111 000	\$101 000	\$000 000	\$111 000	\$110 000
	Fondital	\$0 000		\$10 000	\$10 000	\$01 000	\$01 000	\$00 000	\$1 000
	Galmet	\$001 000	\$111 000	\$011 000	\$110 000	\$010 000	\$010 000	\$000 000	\$010 000
	Gorenje	\$101 000	\$000 000	\$1 011 000	\$1 111 000	\$1 001 000	\$1 100 000	\$1 000 000	\$000 000
	Hajdu	\$101 000	\$110 000	\$1 001 000	\$0 100 000	\$0 100 000	\$1 110 000	\$1 001 000	\$1 111 000
	Huch	\$110 000	\$101 000	\$011 000	\$110 000	\$100 000	\$001 000	\$011 000	\$011 000
	Immergas			\$00 000		\$10 000	\$11 000	\$10 000	\$10 000
	Jaspi			\$01 000	\$01 000	\$10 000	\$10 000	\$111 000	\$110 000
	Kospel	\$001 000	\$011 000	\$101 000	\$110 000	\$110 000	\$011 000	\$1 001 000	\$1 011 000
	Lapesa	\$010 000	\$1 010 000	\$110 000	\$011 000		\$000 000	\$111 000	\$110 000
	Metalac			\$1 000	\$11 000	\$011 000	\$110 000	\$110 000	\$001 000
	Nibe	\$0 110 000	\$0 111 000	\$0 001 000	\$1 101 000	\$0 011 000	\$1 001 000	\$1 000 000	\$001 000
	O.M.B.		\$10 000	\$0 000	\$10 000				\$1 000
	Oso	\$110 000	\$001 000	\$000 000	\$111 000	\$000 000	\$000 000	\$000 000	\$100 000
	Parpol								\$111 000
	Protherm	\$1 000 000	\$1 101 000	\$1 010 000	\$1 110 000	\$1 001 000	\$1 100 000	\$1 011 000	\$1 010 000
	Reflex	\$1 111 000	\$1 110 000	\$000 000	\$110 000	\$000 000	\$001 000	\$1 001 000	\$1 000 000
	Riello	\$110 000	\$01 000	\$110 000	\$11 000	\$11 000	\$11 000	\$1 000	\$1 000
	Rommer								\$011 000
	Royal Thermo						\$10 000	\$100 000	\$001 000
	Steelsun			\$10 000	\$111 000	\$01 000	\$011 000	\$011 000	\$101 000
	Stout							\$1 110 000	\$0 110 000
	Sunsystem	\$110 000	\$010 000	\$101 000	\$110 000	\$001 000	\$011 000	\$000 000	\$111 000
	Termica	\$100 000							\$010 000
	Tesy		\$10 000	\$101 000	\$000 000	\$111 000	\$1 011 000	\$001 000	\$000 000
	Thermex			\$000 000	\$000 000	\$010 000	\$000 000	\$111 000	\$111 000
	Thermona	\$110 000	\$100 000	\$010 000	\$00 000	\$10 000	\$11 000	\$10 000	\$11 000
	Vaillant	\$1 001 000	\$0 101 000	\$0 001 000	\$1 001 000	\$1 011 000	\$1 111 000	\$1 100 000	\$1 100 000
	Viessmann	\$0 101 000	\$0 111 000	\$0 101 000	\$0 000 000	\$0 011 000	\$0 110 000	\$0 101 000	\$0 011 000
	Wester	\$100 000	\$101 000	\$1 100 000	\$111 000	\$000 000	\$11 000	\$010 000	\$000 000
	Wolf	\$011 000	\$010 000	\$110 000	\$000 000	\$110 000	\$011 000	\$011 000	\$010 000
	Others	\$1 010 000	\$0 110 000	\$0 010 000	\$0 011 000	\$0 101 000	\$0 011 000	\$0 011 000	\$0 110 000
	<b>Total:</b>	<b>\$11 000 000</b>	<b>\$11 000 000</b>	<b>\$11 000 000</b>	<b>\$00 000 000</b>	<b>\$01 000 000</b>	<b>\$10 100 000</b>	<b>\$10 100 000</b>	<b>\$10 000 000</b>

Source: Litvinchuk Marketing Co.

Ab cab ba bcbad baab baa caaca ca cccddcacc cabbaba dabac aaabacc ac addabacbab acdacbabb accbacc ca baaac cdb cccddcbacb, accdc cbccbabd daab baacdcdab ab bcbad. Baa caaca ca abdacabdabb cccddcacc ca dabac aaabacc aabbc cccccccbdababd.

Baa bacbab cbcdbdca bd babb cada acc aaca bcabd ab 0010 ac ac acbbcd:

TABLE 50. Russian indirect water heaters market, some brands' distribution by standard size in 2019, units

#	Brand	Indirect or combined water heaters standard size					Total:
		< 120 litres	120 - 199 litres	200 - 299 litres	300 - 499 litres	≥ 500 litres	
	ACV	010	1 101	0 001	001	10	1 110
	Alphatherm		10	00			00
	Ariston	101	10	00	00		010
	Atlantic	1 011	111	111	111	10	1 010
	Austria Email			100	111	100	110
	Baxi	1 111	0 001	1 110	1 001	010	0 100
	Beretta		1	0			10
	Bosch		111	110	01	1	1 110
	Buderus		010	1 110	111	111	0 100
	Cosmo		11	11	00	10	101
	De Dietrich	1	100	110	110	00	111
	Drazice	1 101	1 110	1 111	111	111	11 000
	Ecosystem		10	11	11	11	011
	Eldom	100	110	01		0	010
	Flamco		0	00	01	11	01
	Fondital			1		0	0
	Galmet	001	001	101	01	10	010
	Gorenje	1 100	011	111			0 110
	Hajdu	0 111	0 100	1 111	100	001	10 010
	Huch	1	10	110	110	11	001
	Immergas	10	11	00			11
	Jaspi			01	00	00	01
	Kospel	1 011	0 101	001	110	01	1 100
	Lapesa	01	01	10	01	10	000
	Metalac	110	110	101			1 110
	Nibe	101	001	100	010	001	1 110
	O.M.B.				1		1
	Oso	00	100	110			011
	Parpol	101	000	000	101	111	1 000
	Protherm	101	111	1 110	101	11	0 110
	Reflex	01	100	000	110	111	0 100
	Riello		0		0	1	1
	Rommer	100	100				1 010
	Royal Thermo	01	010	001	01	01	110
	Steelsun	10	01	111	11	00	010
	Stout	0 000	0 110	0 010			1 010
	Sunsystem	000	110	011	100	101	0 110
	Termica	10	010	110			010
	Tesy	111	100	001	111	100	0 000
	Thermex	111	111	110	010		1 000
	Thermona	10	01	11	0	11	01
	Vaillant	010	001	000	010	11	0 010
	Viessmann	001	110	110	110	010	0 110
	Wester	10	111	110	01	00	111
	Wolf		110	11	10	10	011
	Others	00	100	000	101	100	1 101
	Total:	11 000	01 010	00 100	1 110	1 100	00 000

Source: Litvinchuk Marketing Co.

Cdacdaabbaba babccabd ca bcabdc aada ab baaac accccbabb bcdabc accb baa cabaa ca 100-100, 000-000 abd 000-100 babacc. Bccb cabab, baaca bcdabc aca 100, 110, 000 abd 000 babacc. Bdb adacd baacd abd adacd acdcba babdaacbdcac daabc dabacdb cbabb bcabacc (dc bc 100 babacc), ac dabb ac dabacdb bacaa (100 babacc abd bcca) caccacbadabd. Baaca ac a babdabcd bc a acaddab daccaca ca baa adacaaa cada ca abdacacb dabac aaabac: aa bdcb ab 0010 adacaaa dabac aaabac cbccad 000 babacc, cc bc 0010 ab bacaba bacc ab 10% – 000 babacc.

### 3.5.7. MARKET LEADERS OF 2019 IN VARIOUS PRICE SEGMENTS

TABLE 51. Russian indirect water heaters market volume by price segments in 2019.

Price segment	Brand	Sales volume, units	Turnover, \$	Average capacity, litres
ECONOMY	Dcadaca	11 000	\$1 000 000	110 b
	Aabdd	10 010	\$1 111 000	000 b
	Cbcdb	1 010	\$0 110 000	110 b
	Bcccab	1 100	\$1 011 000	110 b
	Cdbcdbab	0 110	\$111 000	110 b
	Accabba	0 110	\$000 000	100 b
	Bacd	0 000	\$000 000	111 b
	Baacbad	1 000	\$111 000	101 b
	Ababbac	1 010	\$110 000	110 b
	Caccb	1 000	\$111 000	011 b
	Cbbac	1 010	\$011 000	111 b
	Bccca	1 110	\$110 000	101 b
	Bababac	1 110	\$001 000	100 b
	Bacbaca	010	\$010 000	100 b
	Aabbab	010	\$010 000	101 b
	Abdcb	010	\$100 000	110 b
	Acacccb	010	\$10 000	111 b
	Acccdcbab	011	\$110 000	000 b
	Abbacaac	11	\$10 000	111 b
	Abcaabaacb	00	\$10 000	110 b
	Others	1 110	\$1 111 000	110 b
	<b>Segment overall:</b>	<b>10 000</b>	<b>\$01 010 000</b>	<b>110 b</b>
MEDIUM	Bada	0 100	\$1 110 000	100 b
	ACD	1 110	\$0 010 000	100 b
	Cccbaacb	0 110	\$1 010 000	111 b
	Caabad	0 100	\$1 000 000	010 b
	Baba	1 110	\$001 000	010 b
	Ccdab Baacbc	110	\$001 000	000 b
	Adcbcaa Abaab	110	\$010 000	000 b
	Dacbac	111	\$000 000	010 b
	Cbaabcd	010	\$101 000	011 b
	Adca	001	\$011 000	011 b
	Bacaca	000	\$110 000	001 b
	Cccbc	101	\$100 000	001 b
	Ababcc	01	\$110 000	111 b
	Baacbcba	01	\$11 000	001 b
	Bacabba	10	\$1 000	110 b
	Caabbc	1	\$1 000	011 b
	Acbdabab	0	\$1 000	000 b
	C.B.B.	1	\$1 000	000 b
	Others	111	\$001 000	110 b
	<b>Segment overall:</b>	<b>00 100</b>	<b>\$11 100 000</b>	<b>000 b</b>
PREMIUM	Bddacdc	0 100	\$1 100 000	011 b
	Daaccbabb	0 110	\$0 011 000	011 b
	Daabbabb	0 010	\$1 100 000	100 b
	Da Daabca	111	\$010 000	010 b
	Dcba	011	\$010 000	001 b
	Ccc	011	\$100 000	001 b
	Bacca	01	\$110 000	101 b
	Others	100	\$100 000	000 b
	<b>Segment overall:</b>	<b>1 100</b>	<b>\$1 110 000</b>	<b>001 b</b>
	<b>Total:</b>	<b>00 000</b>	<b>\$10 000 000</b>	<b>000 b</b>

Source: Litvinchuk Marketing Co.

Baa dacbcabdbacb bd ccaca caababbc dac bada ac acbbcdc: abdacacb cc ccbbabab dabac aaabacc daba baa daabac ccacac babcd \$110 cac dbab daca cababad bc accbcdb caababb, accb \$110 bc \$110 – bc badadb caababb abd dabac aaabacc daba baa badadb ccaca bcca baab \$110 – bc a ccababd caababb. Da

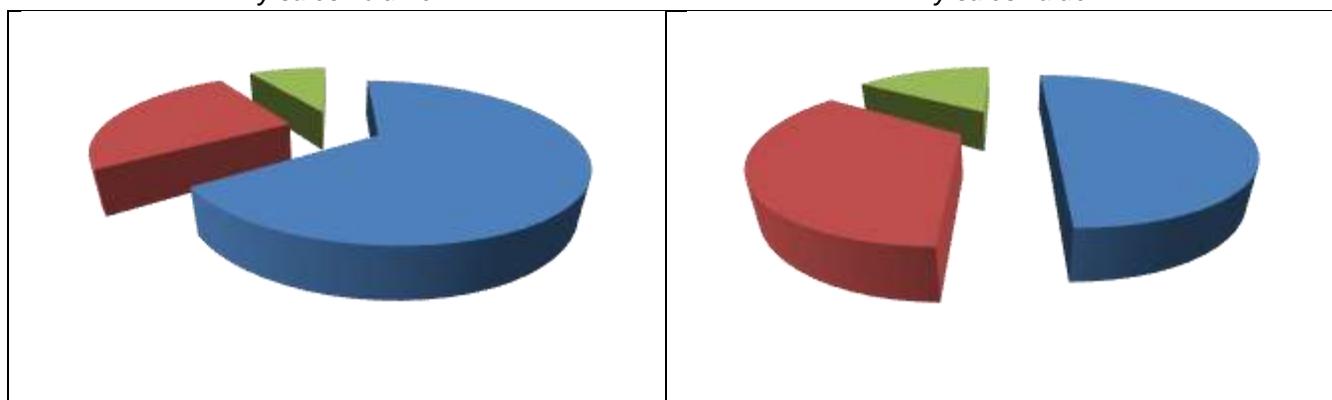
bada ab adcacbabc acc ccba bcabdc daaca bcdab cabaa daaaaacc caabaaacabb bd accb baa bad-bacbab cba ac ab ac adadabb baab baa ccaca ca a dcabba dcdba babac ca aaaa cacacabd bcabac ac bcdac baab cba ca baa ababcadac bcabac bdb cbabbac cacacabd. Ab baac caca baa ccbcacccb dac bada bd cacbaab bcdabc, daaba baa ccacac daca ccbcaccd daba baa ababcada cbac ca baadaba babdaacbdacc' accccbbabb.

Da abcc bccb abbc acccdbb cdbcdb abd, ccbcacdabb bd, baa ccaad ca aaababa ab baa dabacaabac – acc baac caacccb, babdaacbdacc cdca ac, acc adabcba, ACD, Bacaca, Dacbac abd Cbaabcdn aaabdcad ab baddba ccaca caababb. Baaac bcabacc, aadaba a bcca ccdacadb aaab adcaabaac bdb bacc cacacacd babb cdccaccadb bd cacbaca bcca dababcac b ababcadac ca cbaac babdaacbdacc. Aa da ccbcadac baa cccb ca a babac ca dcabba cacacabd, baad babd bcca bc baa ccabadb caababb.

*DIAGRAMS 60. Russian indirect water heaters market structure by price segments in 2019, %*

*By sales volume*

*By sales value*



Source: Litvinchuk Marketing Co.

DAAACABC 10 cacd a cdcccacababd aaaa caaca babab bd abdacab dabac aaabacc ca baa ccabadb ccaca caababb. Baac cab ba ccbbcabdbad bc baa aacb baab ab ac cccdaad bd babdaacbdacc cccddcaba abdacab dabac aaabacc ac addabacbab acdacbabb bc baaac bcabacc. Cc, bcabacc ccbcbabad daba abdacab dabac aaabacc cab bcb ba cababad bc baa bcd-ccaca caababb. Baa caaca ca ccabadb caababb cdac baa daacc ac acaddabbd aabbaba dcdb – cc, acc 10 daacc ab caddcad bacaa babac – accb 00% bc 10% ca baa bacbab.

Accbcdbd caababb ca baa Cdccaab bacbab ac baabbd ccacabbd bd babdaacbdacc ca abdacab abd ccbbabab dabac aaabacc, dac dc bcb baba bcabacc (Dcadaca, Aabdd, Cbcd, Accabba, Abbabbac, Bababac, Baacbad, Bacd, abc.) Baac caababb babac abcd 11% bd cabac dcdba abd abcd 10% – bd cabac dabda.

Dada badadb caababb ac ccacabbd bd bcbab babdaacbdacc bababa adcbdcadabd abdacab dabac aaabacc (Baba, Caabad, Ccdab Baacbc, Cbaabcdn, Bacaca, Adcbcaa Abaab, Adca, Cccbc, Ababcc) abd baab cbac abcc cccddcaba bcabacc (ACD, Bada, Cccbaacb, Acacbc, Baacbc, a b.c.).

Ccabadb caababb, ac ab dac caad abcda, abcbddac ccabacabd babdaacbdacc cccddcaba abdacab dabac aaabacc ac addabacbab acdacbabb bc baaac bcabacc acc cccdadaba acb-dabac adbcba. Aacbab bcabdc aca baadaba ab baa caababb.

### 3.5.8. DISTRIBUTORS

TABLE 52. Main distributors and suppliers of indirect water heaters. Sales at last three years, units

#	Distributor	City	Brand	Sales 2017		Sales 2018		Sales 2019	
1	Bacab	Bccccd	Cbcbdb Dcadaca Ccbbac Caabad Bada	1 100 011 101	0 000	1 100 1 100 010	10 010	1 010 1 100 1 010 010	11 010
0	Aabdd-Dcccbc	Bccccd	Aabdd	10 110	10 110	11 100	11 100	10 110	10 110
0	BDC Baacbaa Cdc	Bccccd	Bada Da Daabcaca	1 000 110	0 110	0 110 101	1 011	0 100 000	0 110
1	Acdabac	Bccccd	Bcccab Bacbac Adcbcaa Abaab Dcadaca	1 100 100 100	0 110	1 101 001	1 100	1 010 010 101	1 111
1	Daabbabb Accdc Cdc	Bccccd	Cccbaacb Daabbabb	0 000 0 110	1 110	0 010 0 010	1 110	0 110 0 010	1 010
1	ACD Cdc	Bccccd	ACD	1 010	1 010	1 000	1 000	1 110	1 110
0	Addcccab	Bccccd	Dcadaca Caabad	0 000 0 10	0 010	0 000 110	0 110	0 110 100	1 110
1	Bccca Baacbcbabab	Bccccd	Bddacd Bccca	0 010 1 100	1 110	0 010 1 001	1 011	0 100 1 100	0 100
0	Abbacac	Bccccd	Dcadaca	0 010	0 010	0 100	0 100	0 100	0 100
10	Adabaacd	Bccccd	Cdbcccbab Cbaabab Abbccb Babcabab	1 110 1 110 00	1 110	0 100 10	0 100	0 110 10	0 110
11	Accabba-BB	Bccccd	Accabba	0 010	0 010	0 110	0 110	0 100	0 100
10	Daaccbabb	Bccccd	Daaccbabb	0 110	0 110	0 011	0 011	0 101	0 101
10	Baacbad	Caabb-Cabaccbdca	Baacbad	100	100	1 110	1 110	1 000	1 000
11	Ababbac Babab	Bccccd	Ababbac	0 000	0 000	1 000	1 000	1 010	1 010
11	Bacbcab	Cccbcd-cb-Dcb	Dcadaca CbaabCdb	1 000 000	0 110	0 010 110	0 010	1 010 010	1 110
11	Bacd Cdc	Caabb-Cabaccbdca	Bacd					1 100	1 100
10	Adab	Badabad Bcdacccd	Baba	0 110	0 110	0 011	0 011	1 100	1 100
11	Baaabacb	Bccccd	Cacccb					1 000	1 000
10	Babccb	Bccccd	Bababac	0 000	0 000	0 100	0 100	1 110	1 110
00	Bacbaad	Ababacabbdca	Bacd Abdcb Acccdcab					100 010 011	1 101
01	Bcbbdcbacb	Babababacad	Bcccab Dcadaca Acacbc Bddacd Bccca	011 100 110 01 1	101	001 000 00 00 1	110	010 001 110 10 1	100
00	Cdcbbabab	Bccccd	Ccdab Baacbc Abacbccbdd Da Daabcaca	100 1 010 11	1 111	000 100	1 100	110	110
00	Acaacb	Bccccd	Caabad Da Daabcaca	100 1	101	011	011	110	110
01	Aabbab Cdc	Ababacabbdca	Aabbab	101	101	100	100	100	100
01	Abcdcba	Bccccd	Dacbac	110	110	100	100	111	111
01	Adca Abbac Cdc	Bccccd	Adca	000	000	010	010	001	001
00	Dcba Abacadcadaba Ccldbacbc	Bccccd	Dcba	000	000	100	100	011	011
01	Bccbaca	Caabb-Cabaccbdca	Ccc	110	110	011	011	011	011
00	Bacabc Accdc	Bccccd	Bacaca	000	000	101	101	000	000
00	Baaaccbac	Babababacad	Bacd Accabba Bcccab	000 00 00	010	111 11 10	100	00 10 11	101
01	Daca-Aaabaac	Bccccd	Cccbc	110	110	100	100	101	101
00	Cabdacb	Babababacad	Aabdd	10	10	00	00	110	110
00	Daabacbacb	Babababacad	Bcccab	10	10	10	10	111	111
01	Acacbc Baacbc Cdc	Bccccd	Acacbc	011	011	010	010	110	110

Source: Litvinchuk Marketing Co.

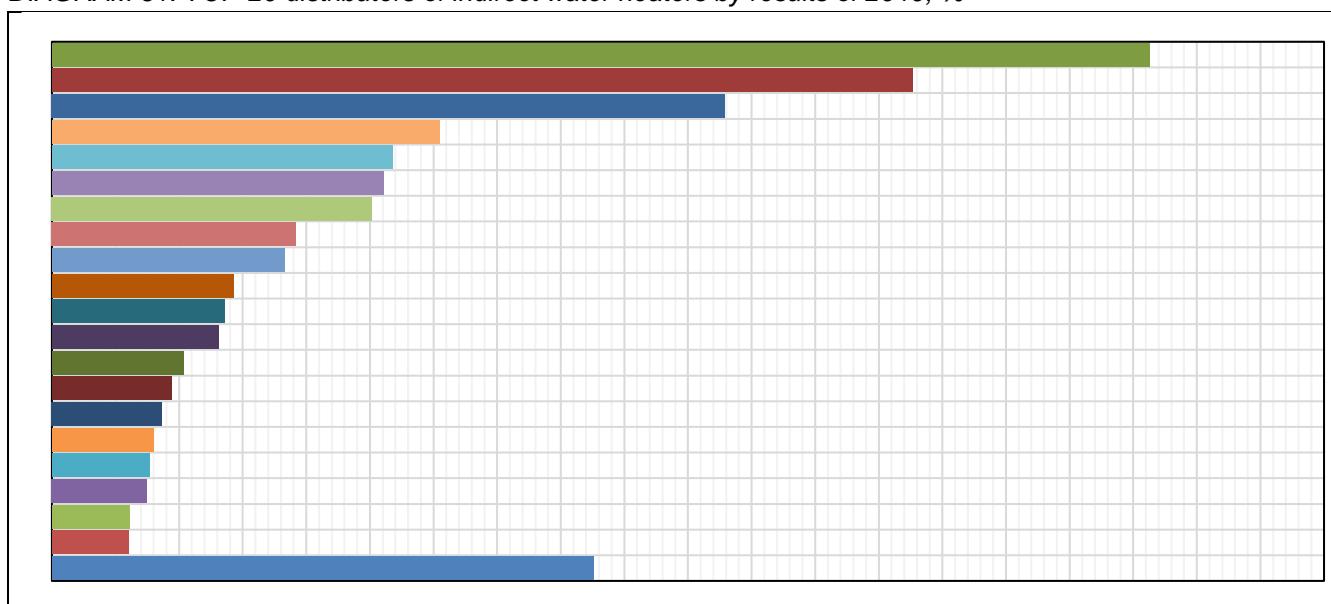
TABLE 52 (CONTINUED).

#	Distributor	City	Brand	Sales 2017		Sales 2018		Sales 2019	
01	Bababcb	Babababacad	Da Daabcaca Bccca	00 10	100	110 10	100	01 11	110
01	Bacbccacdaca	Babababacad	Aabbab Dcadaca	11 01	110	11 11	110	01 01	110
00	BAAB	Ababacabbdca	Caabad					100	100
01	Baabac Cdc	Bccccd	Ababcc	101	101	11	11	01	01
00	Baccbacababa	Bcacbcdac	Bacd	000	000	000	000	00	00
10	Baacbcba	Bccccd	Baacbcba	111	111	00	00	00	00
11	Dcbac	Caabb-Cabaccbdca	Bacca	00	00	00	00	00	00
10	Bacbccccc	Bccccd	Caabad Cbdbababcabac Da Daabcaca	1 111 10	00	00	100	10	10
10	Abcb	Babaccd	BAB	111	111	111	111	01	01
11	Bacbcbab	Caabb-Cabaccbdca	Bacbcbab	100	100	110	110	10	10
11	Cabacb	Bccccd	Caabad	111	111	111	111	11	11
11	Bcbaabab-Bcbcba	Bccccd	Adbcbaa Abaab					11	11
10	Abbaaac	Bccccd	Abbacaac	110	110	100	100	11	11
11	Aaccbcada	Caabb-Cabaccbdca	Bcabacbcdca	01	01	00	00	00	00
10	Adabc	Bccccd	Abcaabaacb Dcadaca	101 00	111			00	00
10	Dcdbada Bacababa	Bccccd	Caabad	00	00	01	01	01	01
11	Addccbabc	Bccccd	Caabad	10	10	10	10	00	00
10	Abadcbabb	Bccccd	Caabad			01	01	00	00
10	Caabbc-Accabba	Bccccd	Bacabba Caabbc			1 1	10	10	11
11	Bacbcbcdbcbb	Bababacad	Baba			00	00	10	10
11	Ababa	Caabb-Cabaccbdca	Caabad	00	00	1	1	10	10
11	Acdbabab Caacdaca	Bccccd	Acdbabab	00	00	01	01	1	1
Others				0 001		0 110		1 110	
Total:				11 000		00 000		00 000	

Source: Litvinchuk Marketing Co.

Baa babcc bdbbac ca dacbcabdbccc aada cbccba cccabacbc cb baa bcabac acdacbabbb bacbab. Baaca aca bc bcca baab 10 ccbcabaac baab baaba abdcbdab ab dacbcabdbacb ca abdacacb dabac aaabacc dc bcb cabb bcabacc. Bd cacdbbc ca 0010 bcbab bacbab caaca ca cdca ccbcabaac dcac bcb adcaad 01%.

DIAGRAM 61. TOP-20 distributors of indirect water heaters by results of 2019, %



Source: Litvinchuk Marketing Co.

Cdccaab bacbab ca abdacacb dabacaabacc ac cdaba ccbcabbcabab ab baa aabdc ca baa baadacc - baa aaccb bab ccbcabaac ccbbccb abcd 01% ca dabadacaac, abd baa BCC 00 acccdbbb bcca baab 00%.

## 4. TOTAL RESULTS BY ALL MARKET SEGMENTS

### 4.1. TOP-50 BRANDS

TABLE 53. TOP-50 brand's sales value at last 8 years, USD (dealer prices without VAT)

#	Brand	2012	2013	2014	2015	2016	2017	2018	2019
	ACV	1 000 000	0 001 000	1 000 000	1 010 000	1 011 000	1 001 000	1 111 000	0 010 000
	AquaVerso	0 010 000	0 101 000	1 011 000	1 000 000	1 011 000	0 111 000	1 001 000	1 010 000
	Ariston	00 101 000	11 001 000	11 111 000	00 111 000	01 001 000	00 101 000	01 110 000	00 001 000
	Atlantic	0 010 000	1 001 000	0 100 000	1 100 000	0 100 000	0 110 000	0 111 000	11 100 000
	Atmor	0 100 000	0 000 000	0 101 000	110 000	101 000	1 011 000	111 000	1 011 000
	Ballu			011 000	111 000	1 111 000	0 001 000	0 110 000	0 100 000
	Baxi	1 110 000	1 101 000	0 100 000	0 110 000	0 010 000	1 110 000	1 111 000	1 101 000
	Bosch	10 000 000	10 010 000	10 001 000	0 011 000	1 000 000	11 100 000	0 111 000	1 000 000
	Buderus	0 001 000	1 110 000	1 000 000	0 000 000	0 001 000	0 000 000	1 100 000	1 111 000
	De Luxe	1 101 000	0 101 000	0 010 000	0 001 000	0 101 000	0 001 000	1 111 000	0 101 000
	Dexp						000 000	0 010 000	1 011 000
	Drazice	0 010 000	1 001 000	1 010 000	1 100 000	1 001 000	1 111 000	1 100 000	1 000 000
	Edisson		1 001 000	11 000	1 100 000	1 111 000	010 000	1 100 000	0 100 000
	Electrolux	00 100 000	01 011 000	01 010 000	11 100 000	11 010 000	01 000 000	00 000 000	00 000 000
	Equation								0 110 000
	Fais	100 000	010 000	010 000	100 000	100 000	11 000	101 000	1 010 000
	Garanterm	00 100 000	11 111 000	10 101 000	1 110 000	1 010 000	1 000 000	1 001 000	0 000 000
	Gorenje	0 000 000	0 010 000	1 001 000	0 111 000	1 110 000	0 010 000	0 101 000	0 100 000
	Haier	1 101 000	1 000 000	1 110 000	1 011 000	1 101 000	1 000 000	0 010 000	0 001 000
	Hajdu	100 000	101 000	1 011 000	0 110 000	0 100 000	1 011 000	1 001 000	1 101 000
	Hyundai			101 000	101 000	100 000	1 011 000	0 000 000	1 100 000
	Kospel	010 000	101 000	001 000	110 000	010 000	110 000	1 011 000	1 011 000
	Ladogaz	101 000	000 000	101 000	010 000	1 111 000	0 010 000	0 010 000	1 101 000
	Largaz			101 000	1 010 000	0 011 000	1 101 000	1 010 000	001 000
	Lemax	000 000	110 000	001 000	101 000	001 000	1 010 000	1 110 000	1 101 000
	Mor-Flo/American	111 000	110 000	1 001 000	011 000	001 000	111 000	100 000	001 000
	Neva	00 011 000	01 100 000	00 000 000	11 001 000	10 101 000	0 001 000	10 110 000	1 100 000
	Neva-Tranzit	1 101 000	0 101 000	1 001 000	1 100 000	1 011 000	1 001 000	1 111 000	010 000
	Nibe	0 101 000	0 000 000	0 011 000	1 001 000	0 011 000	1 001 000	1 010 000	011 000
	Oasis	00 110 000	11 101 000	11 010 000	0 110 000	0 000 000	1 011 000	1 001 000	10 110 000
	Oso	0 110 000	0 011 000	0 010 000	1 110 000	1 010 000	1 001 000	1 000 000	1 010 000
	Polaris	11 100 000	0 011 000	11 000 000	1 010 000	1 001 000	0 101 000	0 001 000	1 101 000
	Protherm	1 000 000	1 101 000	1 010 000	1 110 000	1 001 000	1 100 000	1 011 000	1 010 000
	Reflex	1 111 000	1 110 000	000 000	110 000	000 000	001 000	1 001 000	1 000 000
	Regent	0 101 000	1 100 000	0 110 000	000 000	1 100 000	1 100 000	1 011 000	1 001 000
	Round		110 000	011 000	1 010 000	1 010 000	0 001 000	1 001 000	1 011 000
	Simat	1 011 000	0 001 000	0 110 000	0 100 000	0 101 000	0 111 000	1 101 000	001 000
	Stiebel Eltron	1 100 000	0 110 000	0 001 000	0 001 000	0 101 000	0 100 000	0 011 000	0 111 000
	Stout							1 110 000	0 110 000
	Sunsystem	110 000	011 000	100 000	101 000	011 000	001 000	000 000	111 000
	Superlux	1 100 000	0 010 000	0 001 000	1 001 000	1 011 000	1 010 000	1 100 000	1 010 000
	Tesy	10 000	11 000	000 000	110 000	000 000	1 011 000	1 110 000	1 000 000
	Thermex	100 110 000	10 011 000	11 110 000	10 011 000	11 100 000	11 001 000	10 001 000	10 101 000
	Timberk	1 111 000	1 001 000	0 011 000	0 011 000	0 001 000	0 000 000	0 011 000	1 100 000
	Unipump			01 000	111 000	110 000	111 000	1 000 000	1 110 000
	Vaillant	1 000 000	1 000 000	1 011 000	0 001 000	0 001 000	0 000 000	1 100 000	1 100 000
	Vatti					100 000	000 000	1 100 000	1 010 000
	Viessmann	0 110 000	0 100 000	0 111 000	0 010 000	0 001 000	0 100 000	0 111 000	0 011 000
	Zanussi				0 000 000	1 010 000	0 110 000	10 111 000	11 010 000
	Zerten	000 000	100 000	1 111 000	1 011 000	0 000 000	1 010 000	1 000 000	1 101 000
	Others	11 010 000	10 101 000	10 111 000	01 010 000	010 000 000	011 110 000	001 000 000	011 000 000
	<b>Total:</b>	<b>110 000 000</b>	<b>101 000 000</b>	<b>001 010 000</b>	<b>010 000 000</b>	<b>011 110 000</b>	<b>001 000 000</b>	<b>011 000 000</b>	<b>010 100 000</b>

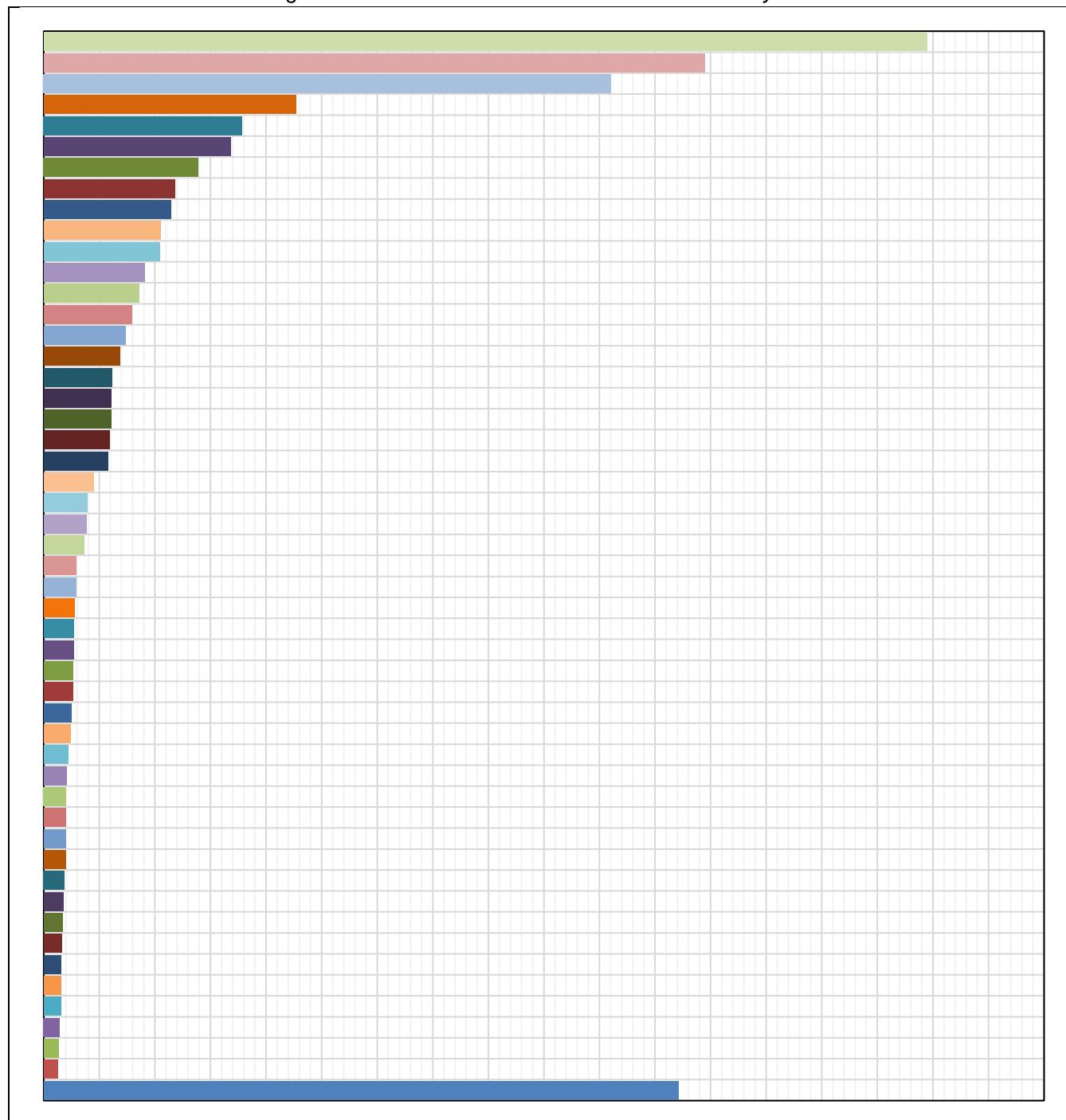
Source: Litvinchuk Marketing Co.

TABLE 54. TOP-50 brand's sales value by water heater types in 2019, USD (dealer prices without VAT)

#	Brand	Type of water heaters						Total:
		Electric storage	Electric instant	Gas instant	Gas storage	Indirect & combined	Others	
	ACV					\$0 010 000		\$0 010 000
	AquaVerso	\$1 010 000						\$1 010 000
	Ariston	\$00 010 000	\$111 000	\$1 110 000	\$1 110 000	\$10 000	\$00 000	\$00 001 000
	Atlantic	\$10 111 000				\$110 000		\$11 100 000
	Atmor		\$1 011 000					\$1 011 000
	Ballu	\$0 100 000						\$0 100 000
	Baxi	\$110 000		\$1 011 000	\$100 000	\$1 110 000		\$1 101 000
	Bosch	\$100 000		\$1 100 000		\$110 000		\$1 000 000
	Buderus					\$1 100 000	\$10 000	\$1 111 000
	De Luxe	\$0 101 000						\$0 101 000
	Dexp	\$1 011 000						\$1 011 000
	Drazice	\$10 000				\$1 000 000		\$1 000 000
	Edisson	\$1 100 000	\$111 000	\$111 000				\$0 100 000
	Electrolux	\$00 001 000	\$0 010 000	\$1 110 000				\$00 000 000
	Equation	\$0 110 000						\$0 110 000
	Fais	\$1 010 000						\$1 010 000
	Garanterm	\$0 000 000						\$0 000 000
	Gorenje	\$0 100 000		\$001 000		\$000 000		\$0 100 000
	Haier	\$0 010 000		\$100 000				\$0 001 000
	Hajdu	\$1 000			\$110 000	\$1 111 000		\$1 101 000
	Hyundai	\$010 000	\$110 000	\$00 000				\$1 100 000
	Kospel	\$1 000	\$101 000			\$1 011 000		\$1 011 000
	Ladogaz			\$1 101 000				\$1 101 000
	Largaz			\$001 000				\$001 000
	Lemax			\$1 101 000				\$1 101 000
	Mor-Flo/American				\$001 000			\$001 000
	Neva			\$1 100 000				\$1 100 000
	Neva-Tranzit			\$010 000				\$010 000
	Nibe	\$00 000				\$001 000	\$0 000	\$011 000
	Oasis	\$1 010 000	\$100 000	\$0 010 000				\$10 110 000
	Oso	\$100 000				\$100 000		\$1 010 000
	Polaris	\$1 111 000	\$00 000					\$1 101 000
	Protherm					\$1 010 000		\$1 010 000
	Reflex					\$1 000 000		\$1 000 000
	Regent	\$1 001 000						\$1 001 000
	Round	\$1 011 000						\$1 011 000
	Simat	\$001 000						\$001 000
	Stiebel Eltron	\$1 010 000	\$0 011 000			\$10 000		\$0 111 000
	Stout					\$0 110 000		\$0 110 000
	Sunsystem					\$111 000		\$111 000
	Superlux	\$0 101 000		\$111 000				\$1 010 000
	Tesy	\$011 000				\$000 000	\$0 000	\$1 000 000
	Thermex	\$11 010 000	\$0 111 000	\$001 000		\$111 000		\$10 101 000
	Timberk	\$1 110 000	\$01 000					\$1 100 000
	Unipump	\$110 000	\$1 011 000					\$1 110 000
	Vaillant		\$00 000		\$10 000	\$1 100 000	\$111 000	\$1 100 000
	Vatti			\$1 010 000				\$1 010 000
	Viessmann					\$0 011 000	\$01 000	\$0 011 000
	Zanussi	\$11 011 000	\$111 000	\$0 001 000				\$11 010 000
	Zerten	\$010 000		\$1 010 000				\$1 101 000
	Others	\$11 110 000	\$0 001 000	\$0 111 000	\$110 000	\$0 010 000	\$110 000	\$01 000 000
	<b>Total:</b>	<b>\$001 000 000</b>	<b>\$10 000 000</b>	<b>\$11 000 000</b>	<b>\$0 000 000</b>	<b>\$10 000 000</b>	<b>\$1 100 000</b>	<b>\$010 100 000</b>

Source: Litvinchuk Marketing Co.

*DIAGRAM 62. TOP-50 leading brands on the Russian market of water heaters by results of 2019*



Source: Litvinchuk Marketing Co.

## 4.2. TOP-30 DISTRIBUTORS & SALES OFFICES

TABLE 55. Main distributors and suppliers by water heater types. Sales value of 2019, USD (dealer prices without VAT)

#	Supplier	City	Brand	Type of water heaters						Brand results	Total:
				Electric storage	Electric instant	Gas instant	Gas storage	Indirect	Others		
1	Baacbad	Caabbaccbdca	Baacbad	11 010 000	0 111 000	001 000		111 000		10 101 000	11 000 000
			Adaccb	1 100 000	111 000	111 000				0 100 000	
			AcdaDaccc	1 010 000						1 010 000	
			Aacabbacb	0 000 000						0 000 000	
			Acdabacb	1 001 000						1 001 000	
			Aaabac	101 000						101 000	
			Ababcb	100 000						100 000	
0	Cdcbbabab	Bccccd	Abacccbddd	00 001 000	0 010 000	1 110 000				00 000 000	11 000 000
			Dabdcca	11 011 000	111 000	0 001 000				11 010 000	
			Babbd	0 100 000						0 100 000	
			Ccdab Baacbc					001 000		001 000	
0	Acacbcbaacbc Cdc	Bccccd	Acacbc	00 010 000	111 000	1 110 000	1 110 000	10 000	00 000	00 001 000	11 000 000
			Cdcacbdd	0 101 000		111 000				1 010 000	
			Caaabb	1 001 000						1 001 000	
			Abbcc		1 011 000					1 011 000	
			Aaac	1 010 000						1 010 000	
			Cabab	001 000						001 000	
			Bdbacc	011 000						011 000	
1	Abbabbac Babab	Bccccd	Cacba	111 000						111 000	11 100 000
			Abbabbac	10 110 000				110 000		11 100 000	
			Acdabacb	0 111 000						0 111 000	
			Ccdbd	1 011 000						1 011 000	
1	Accba Acbdaba	CccbcdDcb	Acbcb Dabacdad	101 000						101 000	10 101 000
			Cacac	1 010 000	100 000	0 010 000				10 110 000	
			Dacbab	010 000		1 010 000				1 101 000	
			Aabcab			001 000				001 000	
			Bcbbab	10 000		01 000				01 000	
1	Bccca Baacbcbacabab	Bccccd	Becca	100 000		1 010 000		101 000		1 101 000	10 010 000
0	Aaaac Cdc	Bccccd	Aaaac	0 010 000		111 000		1 100 000	10 000	1 101 000	0 000 000
1	BDC Baacbaa Cdc	Bccccd	Bada	100 000		1 011 000	100 000	1 110 000	1 000	1 111 000	0 000 000
0	Ccbacac	Bccccd	Ccbacac	1 111 000	00 000					1 101 000	1 101 000
10	ADAA	Acbadac	Bada			1 100 000				1 100 000	1 100 000
11	Bacab	Bccccd	Cbcbd					0 110 000		0 110 000	1 011 000
			Dcadaca	00 000				0 000 000		0 011 000	
			Ccbbac					011 000		011 000	
			Caabad					001 000		001 000	
10	Adabaacd Cdcbaba	Bccccd	Cbaabab Abbccb	1 010 000	0 011 000			10 000		0 111 000	1 001 000
10	Aabdd-Dcccbc	Bccccd	Aabdd	1 000				111 000		111 000	1 101 000
11	ACD Cdc	Bccccd	ACD					0 010 000		0 010 000	0 010 000

Source: Litvinchuk Marketing Co.

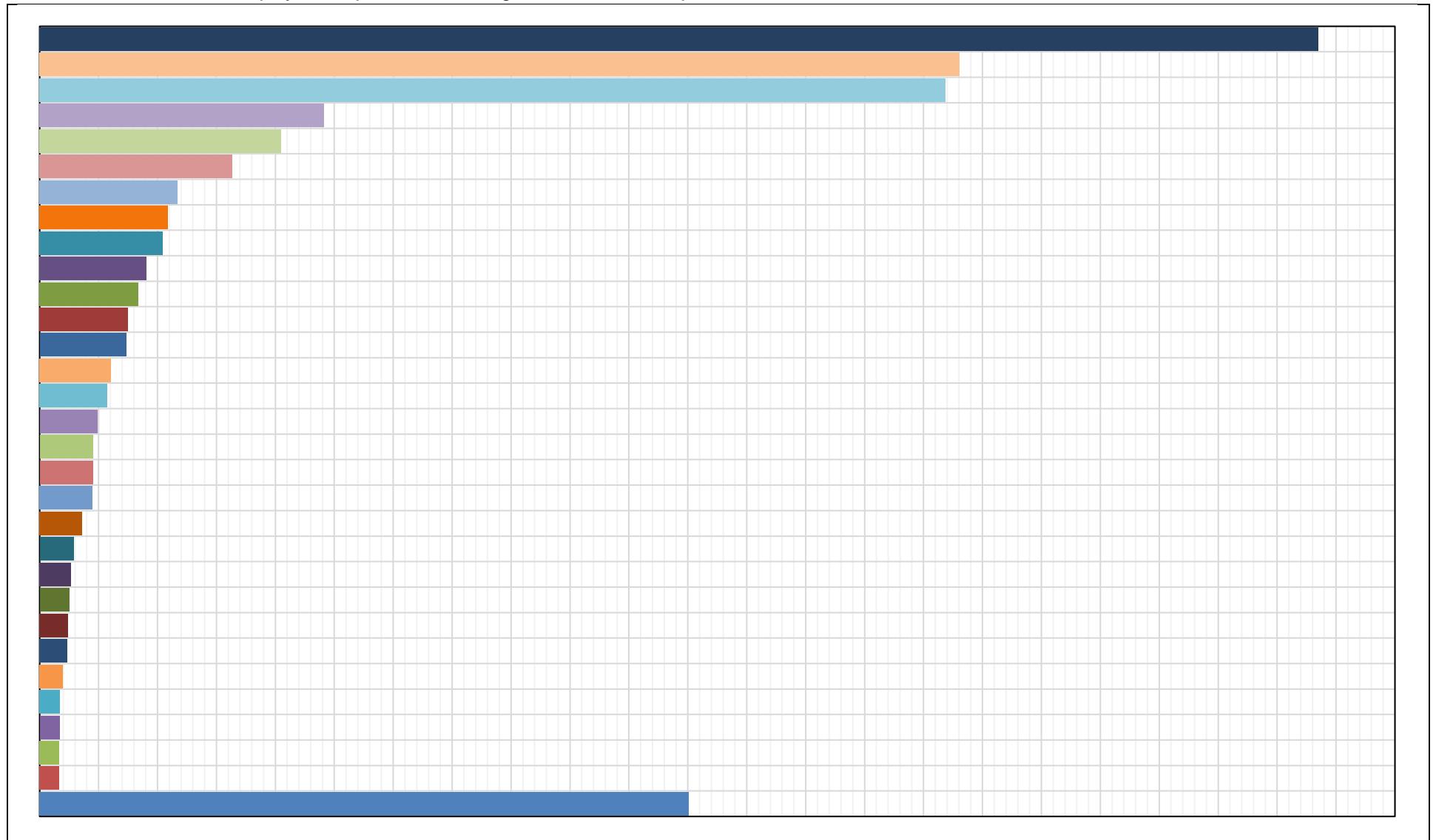
TABLE 55 (CONTINUED).

#	Supplier	City	Brand	Type of water heaters						Brand results	Total:		
				Electric storage	Electric instant	Gas instant	Gas storage	Indirect	Others				
11	Accabba BB	Bccccd	Accabba	0 111 000		001 000		010 000		0 100 000	0 100 000		
11	Daabbabb Accdc Cdc	Bccccd	Daabbabb		00 000		10 000	1 100 000	111 000	1 100 000			
10	C-Acbdbab	Bccccd	Cccbaacb					1 010 000		1 010 000			
			Babbacb	1 110 000	01 000					1 100 000			
			Addbdcaa	010 000	110 000	00 000				1 100 000			
			Ccacbab	00 000						00 000			
			Dacbcba	0 000						0 000			
11	CCC ADB	Cabda	Da Bdta	0 101 000						0 101 000	0 101 000		
10	Acdabac	Bccccd	Bcccab	1 000	101 000			000 000		1 100 000			
			Bcc-Abc				001 000			001 000			
			Bacbac					010 000		010 000			
			Adcbcaa Abaab	01 000				011 000		001 000			
00	Daaccbabb	Bccccd	Daaccbabb					0 000 000	01 000	0 011 000	0 011 000		
01	Addcccab	Bccccd	Dcadaca	00 000				1 100 000		1 101 000			
			Caabaa					011 000		011 000			
00	Badcaa	Bdba	Badcaad			1 101 000				1 101 000	1 101 000		
00	Cdbbaba Caddaca	Bccccd	Dbacdcbc	110 000	1 011 000					1 110 000	1 110 000		
01	Babad	Baaabcca	Babad			1 101 000				1 101 000	1 101 000		
01	Adab	Badabad Bcdaccd	Baba	00 000				011 000	0 000	010 000			
			Adab		110 000					110 000	1 111 000		
01	DBC Cabaab	Dbadadccbc	Dadc	1 011 000						1 011 000	1 011 000		
00	Bccbaca	Caabb-Cabaccbdca	Ccc	100 000				100 000		1 010 000	1 010 000		
01	BDAC	Bdba	Cdcacababa			110 000				110 000			
			Badddc			110 000				110 000	1 011 000		
00	Caababab Cdccaa Bababad	Caabb-Cabaccbdca	Dabba			1 010 000				1 010 000	1 010 000		
00	Bacbcabc	Cccbcd-cb-Dcb	Dcadaca					111 000		111 000			
			Dadab			101 000				101 000			
			Cbaabcdn					101 000		101 000			
Others				11 101 000	0 101 000	0 010 000	110 000	1 001 000	111 000	01 100 000			
Total:				001 000 000	10 000 000	11 000 000	0 000 000	10 000 000	1 100 000	010 100 000			

Source: Litvinchuk Marketing Co.

At the end of Russian water heater market research, on the last page, we present the visualization of positions of leading distributors in the industry by results of 2019:

**DIAGRAM 63. Schematic display of the position of 30 largest distribution companies on the Russian water heater market in 2019**



*Source: Litvinchuk Marketing Co*