

Rules for the use of the data on gas quality and calorific values for the calculation of the energy of delivered gas

Rules for the use of the data on gas quality and calorific values for the calculation of the energy of delivered gas at the transmission system exits have been determined by the applicable Transmission System Network Code and Amendments to the Transmission System Network Code ("Official gazette" nos. 50/18, 31/19, 89/19, 36/20 i 106/21, hereinafter MPTS).

By this document the data are publicly announced in compliance with article 106 of MPTS stipulating that the transmission system operator publishes on its website, and regularly updates the following contents concerning the use of the data on gas quality:

- a) list of all sampling locations
- b) list of all connections with associated primary and replacement relevant sampling locations
- c) rules for the use of data on gas quality and calorific values for the calculation of the energy of delivered gas, determined at sampling locations.

a) A list of all gas sampling locations on the transmission system, art. 106 (5) a) MPTS

A list of all gas sampling locations on the transmission system is in Table 1.

The table contains all sampling locations on the transmission system equipped with process gas chromatographs, regardless of whether the device belongs to the transmission system operator or the owner of the connected plant, and 3 locations on which, due to their low capacity, samples are occasionally taken manually and gas analysis is carried out in an accredited laboratory.

One chromatograph installed at one location can have several sampling locations. Sampling location code consists of location (plant) number at which the chromatograph has been installed and the sample number on the same chromatograph separated by dash. In a similar way the name of the sampling location consists of the name of the location (plant) at which a chromatograph is installed and the name of the pipeline direction on which the device for automatic sampling is installed.

Table 1 – A list of all sampling locations on the transmission system

Sampling location code	Sampling location name	Sampling location type	Operator
001-1	MRS/PČ Ivanja Reka - MRS Ivanić Grad (stream 1)	Chromatograph	Plinacro
001-2	MRS/PČ Ivanja Reka - MRS Zagreb-Istok (stream 2)	Chromatograph	Plinacro
001-3	MRS/PČ Ivanja Reka - MRS Zagreb-Zapad (stream 3)	Chromatograph	Plinacro
001-4	MRS/PČ Ivanja Reka (stream 4)	Chromatograph	Plinacro
002-1	MRČ Zabok - MRS Rogatec (stream 1)	Chromatograph	Plinacro
002-2	MRČ Zabok - MRS Zagreb-Zapad (stream 2)	Chromatograph	Plinacro
002-3	MRČ Zabok - MRČ Ludbreg (stream 3)	Chromatograph	Plinacro
003-1	MRS Straža stream 1	Chromatograph	Plinacro
004-1	MRČ Bjelovar	Chromatograph	Plinacro
005-1	MRČ Budrovac - MRS Varaždin (stream 1)	Chromatograph	Plinacro
005-2	MRČ Budrovac - MRS Ivanić Grad (stream 2)	Chromatograph	Plinacro
005-3	MRČ Budrovac - MRČ Donji Miholjac (stream 3)	Chromatograph	Plinacro
005-4	MRČ Budrovac - CPS Molve (stream 4)	Chromatograph	Plinacro
006-1	MRČ Špišić Bukovica - MRČ/MRS Kutina (stream 1)	Chromatograph	Plinacro
006-2	MRČ Špišić Bukovica - MRČ Budrovac (stream 2)	Chromatograph	Plinacro
006-3	MRČ Špišić Bukovica - MRČ Donji Miholjac (stream 3)	Chromatograph	Plinacro
007-1	MRS Đurđevac stream 1	Chromatograph	Plinacro
008-1	MRČ/MRS Kutina - MRS Virovitica (stream 1)	Chromatograph	Plinacro
008-2	MRČ/MRS Kutina - MRS Ivanić Grad (stream 2)	Chromatograph	Plinacro
008-3	MRČ/MRS Kutina - MRS Slavonski Brod (stream 3)	Chromatograph	Plinacro
008-4	MRČ/MRS Kutina - Kolektor (stream 4)	Chromatograph	Plinacro
009-1	PČ Ludina stream 1	Chromatograph	Plinacro
010-1	MRS Varaždin I stream 1	Chromatograph	Plinacro
011-1	MRS Nova Gradiška stream 1	Chromatograph	Plinacro
012-1	MRS Požega stream 1	Chromatograph	Plinacro
013-1	MRS Vinkovci stream 1	Chromatograph	Plinacro
014-1	MRČ Ludbreg - MRČ Zabok (stream 1)	Chromatograph	Plinacro
014-2	MRČ Ludbreg - DN 500 Budrovac (stream 2)	Chromatograph	Plinacro
014-3	MRČ Ludbreg - DN 300 Budrovac (stream 3)	Chromatograph	Plinacro
014-4	MRČ Ludbreg - MRS Varaždin I (stream 4)	Chromatograph	Plinacro
016-1	MRS Dobrovac stream 1	Chromatograph	Plinacro
018-1	MRS Slavonski Brod stream 1	Chromatograph	Plinacro
019-1	MRS Zagreb Zapad stream 1	Chromatograph	Plinacro
020-1	MRS Zagreb Jug stream 1	Chromatograph	Plinacro
021-1	Terminal Pula stream 1	Chromatograph	Plinacro
022-1	MRS Osijek I stream 1	Chromatograph	Plinacro
023-1	PČ / MRS Benkovac stream 1	Chromatograph	Plinacro
024-1	MRČ Donji Miholjac - MRČ Budrovac (stream 1)	Chromatograph	Plinacro
024-2	MRČ Donji Miholjac - MRS Beničanci (stream 2)	Chromatograph	Plinacro
024-3	MRČ Donji Miholjac - MRS Bokšić (stream 3)	Chromatograph	Plinacro
024-4	MRČ Donji Miholjac - MRS Osijek (stream 4)	Chromatograph	Plinacro
025-1	UIMS Donji Miholjac stream 1	Chromatograph	Plinacro
026-1	MRS Rijeka Istok stream 1	Chromatograph	Plinacro
027-1	MRS Sisak stream 1	Chromatograph	Plinacro
029-1	PČ Omišalj	Kromatograf	Plinacro
101-1	CPS Molve	Chromatograph	INA d.d.
102-1	UMS Etan (Ivanić Grad) stream 1	Chromatograph	INA d.d.
201-1	PSP Okoli stream 1	Chromatograph	PSP d.o.o.
301-1	UPP Terminal	Kromatograf	LNG d.o.o.
12	PS Gola	Manual sampling	Laboratory
18	Virje	Manual sampling	Laboratory

b) A list of all connections with associated primary and replacement relevant sampling locations

A list of all exit connections of the transmission system is indicated in Table 2.

The enclosed table lists separately exits towards distribution systems and exits towards final customers connected directly to the transmission system. In the first part of the table with exits towards distribution systems joint exits to which sampling locations are not associated are marked by yellow background (MPTS, art. 32), while physical exits included in a separate joint exit are marked by green background in the table. For them, the codes of the associated sampling locations are also indicated.

Table 2 - List of all connections with associated primary and replacement relevant sampling locations, art. 106 (5) b) MPTS

No.	Exit code	Exit name	Sampling location name (tablica 1)							
			primary	II	III	IV	V	VI	VII	VIII
		Dystribution system exit								
1	837	Badlješina - 3 bar - Badlješina	016-1	004-1	005-2	101-1	008-4	006-2		
	1253	Baranja								
2	882	Beli Manastir - 3 bar - Beli Manastir	024-4	022-1	012-1	011-1	018-1	025-1	006-3	
3	728	Meće - 3 bar - Meće	022-1	024-4	012-1	011-1	018-1	025-1	006-3	
4	729	Bedekovčina - 3 bar - Bedekovčina	002-3	003-1	019-1	014-1	010-1			
5	781	Belišće - 2,2 bar - Valpovo	024-4	022-1	012-1	011-1	018-1	025-1	006-3	
6	1292	Benkovac - 3,5 bar - Benkovac	023-1	026-1	021-1	008-3	011-1	025-1	029-1	301-1
7	1294	Biograd - 3,5 bar - Biograd	023-1	026-1	021-1	008-3	011-1	025-1	029-1	301-1
8	1252	Bjelovar								
9	879	Bjelovar - 3 bar - Bjelovar	004-1	005-2	101-1	016-1	008-4	001-1		
10	852	Nova Rača - 3 bar - Bjelovar	016-1	004-1	005-2	101-1	008-4	006-2		
11	803	Rovišće - 3 bar - Bjelovar	004-1	005-2	101-1	016-1	008-4	001-1		
12	833	Bokšić - 3 bar - Bokšić	024-3	022-1	012-1	011-1	018-1	025-1	006-3	024-2
13	812	Bokšić - 3 bar - Crnac	024-3	022-1	012-1	011-1	018-1	025-1	006-3	024-2
14	818	Brezine - 3 bar - Brezine	016-1	004-1	005-2	101-1	008-4	006-2	101-1	
15	901	Budrovac staklenici - 2 bar -	007-1							

		Staklenici Budrovac								
No.	Exit code	Exit name	primary	II	III	IV	V	VI	VII	VIII
16	874	Cerje Tužno - 3 bar - Sela (IVKOM)	010-1	014-4	005-1	002-3	019-1			
17	806	Čabdin - 3,5 bar - Jastrebarsko	026-1	021-1	008-3	011-1	025-1	029-1	301-1	
18	732	Čačinci - 3 bar - Čačinci	024-3	022-1	012-1	011-1	018-1	025-1	006-3	024-2
19	850	Čepelovac - 2 bar - Čepelovac	005-2	004-1	006-2	101-1				
20	790	Daruvar - 3 bar - Daruvar	016-1	004-1	005-2	101-1	008-4	006-2		
21	865	Dobrovac - nova - 3 bar - Lipik	016-1	004-1	005-2	101-1	008-4	006-2		
22	819	Dobrovac - nova - 3 bar - Poljoprivreda Lipik	016-1	004-1	005-2	101-1	008-4	006-2		
23	768	Doljani - 3 bar - Doljani	016-1	004-1	005-2	101-1	008-4	006-2		
24	748	Donje Međimurje - 12 bar - Prelog	014-2	101-1	005-1	010-1	002-3	003-1		
25	824	Donje Međimurje - 3 bar - D.Dubrava	014-2	101-1	005-1	010-1	002-3	003-1		
26	783	Donji Andrijeveci - 3 bar - Donji Andrijeveci	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
27	1311	Donji Andrijeveci - 3 bar - HEP	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
28	813	Donji Miholjac - 3 bar - Donji Miholjac	024-1	022-1	012-1	011-1	018-1	025-1	006-3	
29	716	Draganac - 4 bar - Draganac	004-1	005-2	101-1	016-1	008-4			
30	1306	Drniš-3,5 bar_Drniš	023-1	026-1	021-1	008-3	011-1	025-1	029-1	301-1
31	730	Dubrovčan - 3 bar - Dubrovčan	002-3	003-1	019-1	014-1	010-1			
	1287	Dugo Selo								
32	900	Trstenik - 3 bar - Trstenik	001-1	020-1	019-1	019-1				
33	866	Dugo Selo - 3 bar - Dugo Selo	001-1	020-1	019-1	019-1				
34	825	Đurđevac - 2 bar - Đurđevac	007-1	005-2						
35	902	Ferdinandovac - 2 bar - Ferdinandovac	007-1	005-2						
36	761	Ferovac - 3 bar - Pleternica	012-1	024-2	011-1	025-1	022-1			
37	867	Gaj - 3 bar - Gaj	016-1	004-1	005-2	101-1	008-4			
38	840	Garešnica - 3 bar - Garešnica	008-1	006-1	016-1					
39	799	Gola - 3 bar - Gola	12							

No.	Exit code	Exit name	primary	II	III	IV	V	VI	VII	VIII
40	881	Gradec - 3 bar - Farma Gradec	004-1	005-2	101-1	016-1	008-4	001-1		
41	727	Gradec - 3 bar - Gradec	004-1	005-2	101-1	016-1	008-4	001-1		
42	788	Gradečki Pavlovac - 3 bar - Asfaltna baza	004-1	005-2	101-1	016-1	008-4	001-1		
43	868	Grubišno Polje - 3 bar - Grubišno Polje	016-1	004-1	005-2	101-1	008-4	006-2		
44	841	Haganj - 6 bar - Haganj	004-1	005-2	101-1	016-1	008-4	001-1		
45	1316	Hampovica – 3bar - Hampovica	18							
46	722	IP Kalinovac 5 - 3 bar - Sesvete	007-1		005-2					
47	903	Ivanec - 3 bar - Ivanec	010-1	014-4	005-1	002-3	019-1			
	1250	Ivanić Grad								
48	891	Graberje - 1,5 bar - Graberje	001-1	004-1						
49	869	Ivanić III - 3 bar - Ivanić Grad	001-1	004-1						
50	892	Kloštar Ivanić - 2 bar - Kloštar Ivanić	102-1	004-1	001-1	009-1				
51	845	Novoselec - 2 bar - Križ	001-1	004-1						
52	878	Ivankovo - 3 bar - Ivankovo	013-1	018-1	012-1	022-1	011-1			
53	807	Ivanja Reka - 6 bar - Iv. Reka, Sesvete	001-4	020-1	019-1					
54	731	Jakovlje - 3 bar - Jakovlje	002-2	019-1	003-1					
55	801	Kalinovac - 2 bar - Kalinovac	007-1	005-2	005-2					
56	777	Karlovac - 4 bar - Karlovac	026-1	021-1	008-3	011-1	025-1	029-1	301-1	
57	753	Klanjec - 3 bar - Klanjec	002-3	003-1	019-1	014-1				
58	802	Kloštar Podravski - 2 bar - Kloštar Podravski	005-3	006-2	101-1	004-1	002-3			
59	1296	Knin - 5 bar - Knin	023-1	026-1	021-1	008-3	011-1	025-1	029-1	301-1
60	743	Končanica - 3 bar - Končanica	016-1	004-1	005-2	101-1	008-4	006-2		
	1302	Konjščina								
61	912	Konjščina - 25 bar - Zlatar Bistrica	002-3	003-1	019-1	014-1	010-1			
62	808	Konjščina - 3 bar - Konjščina	002-3	003-1	019-1	014-1	010-1			
63	1323	Podrute - 3 bar - Konjščina	002-3	003-1	019-1	014-1	010-1			
64	904	Koprivnica II - 6 bar - Koprivnica	014-2	005-1	007-1	101-1	002-3	010-1		

No.	Exit code	Exit name	primary	II	III	IV	V	VI	VII	VIII
65	778	Krapina - 3 bar - Krapina	003-1	002-1	019-1					
66	905	Križevci - 3 bar - Križevci	004-1	005-2	101-1	016-1	008-4	001-1		
67	715	Kršan - 6 bar - Potpićan	021-1	026-1	008-3	011-1	025-1			
68	893	Kukunjevac - 3 bar - Kukunjevac	016-1	004-1	005-2	101-1	008-4	006-2		
69	754	Kumrovec - 3 bar - Kumrovec	002-3	003-1	019-1	014-1	010-1			
	1286	Kutina								
70	838	Banova Jaruga - 3 bar - Banova Jaruga	008-4	016-1	009-1					
71	820	Kutina I - 3 bar - Kutina	008-4	016-1	009-1					
72	821	Kutina II - 3 bar - Kutina	008-1	006-1	016-1					
73	871	Lipovica - 3 bar - Ludina	027-1	008-4	016-1	009-1				
74	1308	Popovača - 3bar - Popovača	008-2	027-1	016-1	009-1				
75	1276	Labin - 4 bar - Labin	021-1	026-1	008-3	011-1	025-1			
76	750	Legrad - 3 bar - Legrad	014-2	005-4	010-1	101-1	002-3	003-1		
77	762	Magadenovac - 3 bar - Magadenovac	024-2	022-1	012-1	011-1	018-1	025-1	006-3	
78	916	Marijanci - 3 bar - Marijanci	024-2	022-1	012-1	011-1	018-1	025-1	006-3	
	1259	Međimurje								
79	827	Mihovljan - 4 bar - Mihovljan	010-1	014-4	005-1	002-3	019-1			
80	906	Mursko Središće - 3 bar - Mursko Središće	010-1	014-4	005-1	002-3	019-1			
81	1184	Nedelišće - 4 bar - Čakovec, Kuršanec, Šenkovec	010-1	014-4	005-1	002-3	019-1			
82	907	Nedelišće - 4 bar - Nedelišće	010-1	014-4	005-1	002-3	019-1			
83	774	Molve selo - 2 bar - Molve	005-2	004-1	101-1	006-2				
84	872	Narta - 3 bar - Narta	004-1	005-2	101-1	016-1	008-4	001-1		
	1319	Našice								
85	860	Našice grad - 3 bar - Našice	024-3	022-1	012-1	011-1	018-1	025-1	006-3	024-2
86	784	Đurđenovac - 3 bar - Đurđenovac	024-3	022-1	012-1	011-1	018-1	025-1	006-3	024-2
87	785	Feričanci - 3 bar - Feričanci	024-3	022-1	012-1	011-1	018-1	025-1	006-3	024-2
88	733	Koška - 3 bar - Koška	024-3	022-1	012-1	011-1	018-1	025-1	006-3	024-2

No.	Exit code	Exit name	primary	II	III	IV	V	VI	VII	VIII
89	764	Negoslavci - 3 bar - Opatovac	013-1	018-1	012-1	011-1	018-1	025-1	006-3	
	1288	Nova Gradiška								
90	844	Lipovljani - 4 bar - Lipovljani	016-1	008-4	009-1					
91	767	Nova Gradiška - 4 bar - Nova Gradiška	011-1	008-3	025-1					
92	889	Nova Kapela - 4 bar - Nova Kapela	011-1	008-3	025-1					
	1289	Novi Marof								
93	913	Novi Marof - 3 bar - Novi Marof	014-1	002-3	003-1	010-1				
94	757	Tuhovec - 3 bar - Tuhovec	014-1	002-3	003-1	010-1				
95	809	Podrute - 5 bar - Podrute	014-1	002-3	010-1	003-1				
96	1245	Ogulin - 3 bar - Ogulin	026-1	021-1	008-3	011-1	025-1	103-1	029-1	301-1
97	744	Okoli - 3 bar - Okoli	201-1	009-1						
98	736	Orahovica - 3 bar - Orahovica	024-3	022-1	012-1	011-1	018-1	025-1	006-3	024-2
	1317	Osijek-Đakovo								
99	782	Bizovac - 3 bar - Bizovac	022-1	024-4	012-1	011-1	018-1	025-1	006-3	
100	918	Osijek I - 3 bar - Osijek	022-1	024-4	012-1	011-1	018-1	025-1	006-3	
101	737	Osijek I - 3 bar - Sarvaš	022-1	024-4	012-1	011-1	018-1	025-1	006-3	
102	739	Osijek III - 3 bar - Osijek	022-1	024-4	012-1	011-1	018-1	025-1	006-3	
103	760	Đakovo - 3 bar - Đakovo	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
104	834	Đakovo - 6 bar - Đakovo	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
105	835	Strizivojna - 3 bar - Strizivojna	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
106	795	Pakrac I - 3 bar - Pakrac	016-1	004-1	005-2	101-1	008-4	006-2		
107	894	Pakračka Poljana - 3 bar - Pakračka Poljana	016-1	004-1	005-2	101-1	008-4	006-2		
108	853	Pitomača - 3 bar - Pitomača	006-2	005-3	024-1	101-1				
109	1244	Poreč - 4 bar - Poreč	021-1	026-1	008-3	011-1	025-1			
	1256	Požega								
110	786	Ferovac - 3 bar - Ferovac	012-1	024-2	011-1	025-1	022-1	K2-1		
111	740	Požega - 3 bar - Požega	012-1	024-2	011-1	025-1	022-1	K2-1		
112	766	Pula - 12 bar - Pula	021-1	026-1	008-3	011-1	025-1			
113	1274	Rijeka Istok – 4 bar – Rijeka	026-1	021-1	008-3	011-1	025-1			

No.	Exit code	Exit name	primary	II	III	IV	V	VI	VII	VIII
114	888	Rijeka zapad - 16 bar - Rijeka	026-1	021-1	008-3	011-1	025-1			
115	815	Rijeka zapad - 4 bar - Rijeka	026-1	021-1	008-3	011-1	025-1			
116	1243	Rovinj - 4 bar - Rovinj	021-1	026-1	008-3	011-1	025-1			
117	719	Rugvica - 4bar - BC Institut	001-1	020-1	019-1					
118	896	Sirač - 3 bar - Sirač	016-1	004-1	005-2	101-1	008-4	006-2		
119	745	Sirač - 4,5 bar - Kamenolom Sirač	016-1	004-1	005-2	101-1	008-4	006-2		
120	797	Sisak - 6 bar - Sisak	027-1	009-1	008-2					
	1257	Slatina								
121	940	Sladojevc - 3 bar - Sladojevc	006-3	024-1	025-1	101-1	005-1	005-3		
122	887	Slatina - 3 bar - Slatina	006-3	024-1	025-1	101-1	005-1	005-3		
123	915	Čađavica - 3 bar - Čađavica	024-1	022-1	012-1	011-1	018-1	025-1	006-3	
124	861	Slavonski Brod - 3 bar - Sl. Brod	018-1	013-1	012-1	011-1	024-2			
125	1300	Split - 3,5 bar - Split	023-1	026-1	021-1	008-3	011-1	025-1	029-1	301-1
126	1301	Split - 12 bar - Split	023-1	026-1	021-1	008-3	011-1	025-1	029-1	301-1
127	755	Straža - 3 bar - Pregrada	003-1	002-1	K1-1					
128	787	Strizivojna - 3 bar - Vrpolje	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
129	897	Stružec - 3 bar - Stružec	027-1	008-2	009-1					
130	908	Suha žbuka - 4,5 bar - Suha žbuka	007-1	005-2						
131	756	Sv. Ivan Zelina - 3 bar - Zelina	002-3	003-1	019-1	014-1	010-1			
132	1295	Šibenik - 12 bar - Šibenik	023-1	026-1	021-1	008-3	011-1	025-1	029-1	301-1
133	830	Tuheljske Toplice - 3 bar - Tuheljske Toplice	002-3	003-1	019-1	014-1	010-1			
134	1222	Umag - 4 bar - Umag	021-1	026-1	008-3	011-1	025-1			
	1251	Varaždin								
135	798	Cerje Tužno - 3 bar - Cerje Tužno	010-1	014-4	005-1	002-3	019-1			
136	800	Jalžabet - 3 bar - Jalžabet	014-4	010-1	005-1	002-3				
137	773	Lepoglava - 3 bar - Lepoglava	010-1	014-4	005-1	002-3	019-1			
138	724	Ludbreg - 3 bar - Ludbreg	014-2	005-1	010-1	101-1	003-1	002-3	019-1	
139	804	Varaždin I - 3 bar - Varaždin	010-1	014-4	005-1	002-3	019-1			

No.	Exit code	Exit name	primary	II	III	IV	V	VI	VII	VIII
140	876	Varaždin II - 3 bar - Varaždin	010-1	014-4	005-1	002-3	019-1			
141	747	Veliki Grđevac - 3 bar - Veliki Grđevac	016-1	004-1	005-2	101-1	008-4	006-2		
142	725	Veliko Trojstvo - 3 bar - Veliko Trojstvo	004-1	005-2	101-1	016-1	008-4	001-1		
143	789	Viljevo - 3 bar - Viljevo	024-1	022-1	012-1	011-1	018-1	025-1	006-3	
144	863	Vinkovci - 3 bar - Vinkovci i okolica	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
145	752	Virje - 3 bar - Novigrad	005-1	014-3	101-1					
146	726	Virje - 3 bar - Virje	005-1	014-3	101-1					
	1318	Virovitica								
147	771	Đolta - 3 bar - Sušare Đolta	006-2	005-3	024-1	101-1				
148	909	Suhopolje - 3 bar - Suhopolje	006-3	024-1	025-1	005-3	101-1			
149	854	Virovitica - 6 bar - Virovitica	006-3	024-1	025-1	005-3	101-1			
150	848	Vrbovec - 6 bar - Vrbovec	004-1	005-2	101-1	016-1	008-4	001-1		
	1285	Vukovar								
151	816	Vukovar - 3 bar - Vukovar	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
152	864	Vukovar - 6 bar - Borovo	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
153	735	Negoslavci - 3 bar - Negoslavci	013-1	018-1	012-1	011-1	018-1	025-1	011-1	
154	885	Zabok - 10 bar - Donja Stubica	002-3	014-1	003-1	010-1				
155	914	Zabok - 3 bar - Zabok	002-3	014-1	003-1	010-1				
156	1241	Zadar - 5 bar - Zadar srednji tlak	023-1	026-1	021-1	008-3	011-1	025-1	029-1	301-1
	1249	Zagreb								
157	780	Zagreb istok - 6 bar - Zagreb	001-2	020-1	019-1					
158	858	Zagreb jug - 6 bar - Zagreb	020-1	001-3	019-1	002-2				
159	810	Zagreb zapad - 6 bar - Zagreb	019-1	002-2	020-1	014-1	003-1			
160	829	Zagreb zapad - 25 bar - Samobor	019-1	002-2	020-1	014-1	003-1			
161	884	Zagreb zapad - 3,5 bar - Sv. Nedjelja	019-1	002-2	020-1	014-1	003-1			
162	886	Zaprešić - 6 bar - Zaprešić	019-1	002-2	020-1	014-1	003-1			
163	776	Žabno - 3 bar - Žabno	004-1	005-2	101-1	016-1	008-4	001-1		
164	817	Županja - 3 bar - Gradište	013-1	018-1	012-1	022-1	024-2	025-1	011-1	

165	890	Županja - 3 bar - Županja	013-1	018-1	012-1	022-1	024-2	025-1	011-1	
Exits towards end customers connected to gas transmission system										
166	759	Belišće - 2 bar - Tvornice Belišće	024-4	022-1	012-1	011-1	018-1	025-1	006-3	
167	763	Cementara Našice - 3 bar - Cementara Našice	024-3	022-1	012-1	011-1	018-1	025-1	006-3	024-2
168	849	Cerje Tužno - 3 bar - Ciglana C.Tužno	010-1	014-4	005-1	002-3	019-1			
169	944	CPS Molve, potrošnja - 13 bar - CPS Molve,	005-2	004-1	101-1	006-2				
170	839	Dobrovac - nova - 3 bar - Staklana Lipik	016-1	004-1	005-2	101-1	008-4	006-2		
171	791	Dugo Selo - 3 bar - Cinčaona D. Selo	001-1	020-1	019-1					
172	1248	Dugo Selo - 30 bar - Plin-lift	001-1	020-1	019-1					
173	792	Graberje - 1,5 bar - Ind. krug Graberje	001-1	004-1						
174	826	IP Kalinovac 5 - 2,5 bar - INA - IP Kalinovac	007-1	005-2						
175	911	Ivanja Reka - 30 bar - TE-TO Zagreb	001-4	020-1	019-1					
176	855	Konjščina - 25 bar - TE Jertovec	002-3	003-1	019-1	014-1	014-1	010-1		
177	772	Križevci - 3 bar - Ciglana Križevci	004-1	005-2	101-1	016-1	008-4	001-1		
178	946	KS Stručec - 3 bar - KS Stručec	027-1	008-2	009-1					
179	717	Kutina I - 13,3 bar - Petrokemija Kutina	008-4	016-1	009-1					
180	843	Lipovica - 3 bar - KPD Lipovica	027-1	008-4	016-1					
181	1195	Lipovljani - 18 bar - INA Lip.-Jam.	016-1	008-4	009-1					
182	859	Magadenovac - 3 bar - Farma Magadenovac	024-2	022-1	012-1	011-1	018-1	025-1	005-3	
183	734	Našice grad - 3 bar - Ciglana Našice	024-3	022-1	012-1	011-1	018-1	025-1	005-3	024-2
184	945	OS Beničanci - 30 bar - OS Beničanci, plinski lift	024-2	022-1	012-1	011-1	018-1	025-1	005-3	
185	738	Osijek I - 15 bar - TE-Os1	022-1	024-4	012-1	011-1	018-1	025-1	005-3	
186	765	Osijek I - 15 bar - TE-Os2	022-1	024-4	012-1	011-1	018-1	025-1	005-3	
187	917	Osijek I - 3 bar - HEP Kotlovnica	022-1	024-4	012-1	011-1	018-1	025-1	005-3	
188	1198	Rijeka Istok - 45 bar - Rafinerija Urinj	026-1	021-1	008-3	011-1	025-1			
189	720	Sisak - 6 bar - Raf. nafte Sisak	027-1	009-1	008-2					

No.	Exit code	Exit name	primary	II	III	IV	V	VI	VII	VIII
190	721	Sisak - 6 bar - TE Sisak	027-1	009-1	008-2					
191	846	Sisak - 6 bar - TO Sisak	027-1	009-1	008-2					
192	1297	Sisak - 31 bar - TO Sisak	027-1	009-1	008-2					
193	746	Sisak - 9 bar - Gavrilović	027-1	009-1	008-2					
194	796	Sisak - 9 bar - Željezara Sisak	027-1	009-1	008-2					
195	741	Sladojevci - 3,9 bar - Ciglana Sladojevci	006-3	024-1	025-1	101-1	005-1			
196	1321	Slobodnica - 25 bar - Slobodnica	011-1	018-1						
197	856	Straža - 3 bar - Staklana Straža	003-1	002-1						
198	751	Šenkovec - 3 bar - Ciglana Šenkovec	010-1	014-4	005-1	002-3	019-1			
199	910	Veliko Trojstvo - 15 bar - KS Šandrovac	004-1	005-2	101-1	016-1	008-4	001-1		
200	877	Virovitica - 6 bar - Šećerana Virovitica	006-3	024-1	025-1	005-3	101-1			
201	857	Zagreb jug - 25 bar - EL-TO Zagreb	020-1	001-3	019-1	002-2				
202	758	Zaprešić - 20 bar - Pliva	019-1	002-2	020-1	014-1	003-1			
203	836	Županja - 3 bar - Šećerana Županja	013-1	018-1	012-1	022-1	024-2	025-1	011-1	

c) Rules for the use of the data on gas quality and calorific values for the calculation of the energy of delivered gas

The result of the process chromatograph operation are the data on chemical composition of gas and physical properties calculated from chemical composition of gas whereas the determining of chemical composition of natural gas is carried out in compliance with "HRN EN ISO 6974 – Natural gas – Determination of composition and associated uncertainty by gas chromatography" standard. Pursuant to the Network Code of the Transmission System, standard reference conditions for all metering and calculations of natural gas volume and energy are as follows: - for calculating the volume it is the temperature of 288.15 K (15°C) and pressure of 101.325 kPa (1.01325 bar(a)) – for calculating the calorific value, energy and Wobbe index it is the referent temperature of combustion of 288.15 K (15°C). Conversion of values to other reference conditions is carried out with conversion factors in compliance with "HRN EN ISO 13443 – Natural gas – Standard reference conditions" standard.

The calculation of delivered gas energy at the exit transmission system connections is carried out automatically in the SUKAP information system by multiplying the value of hourly measured gas volume by the average daily net calorific value for the appropriate gas day, for the appropriate sampling location. Hourly measured volume is in this case expressed in a measuring unit of standard cubic meter (Sm³) at a standard pressure (1.01325 bar (a)) and temperature of (15°C) rounded to an integer.

Net calorific value is expressed in kWh/m³, also at the same standard conditions for volume and for temperature of products of combustion of 15°C, rounded to 3 decimal places. The result of multiplying is a quantity of energy for the observed hour expressed in kWh, rounded to an integer without decimal places.

Average daily net calorific value for the sampling location for a gas day is the arithmetic mean value of the results of analyses of all individual gas samplings within the observed gas day.

For an individual connection with gas volume measuring, a relevant sampling location is a sampling location physically placed on the transmission system closest to the observed connection and the sample is taken from the same gas stream without mixing with gases from other sources.

In case of unavailability of data from an individual device, that is, a malfunction of a device, and in case of significant changes in the regime of gas flows through gas pipelines, the transmission system operator may temporarily or permanently assign another, replacement sample, to a gas volume exit metering point. The replacement sample is a sample that meets the same conditions as the primary one (the sample is taken from the same gas stream) but its distance from the connection is larger than the one of the primary relevant sample. In cases when not even the data from the replacement sample are available for use, the last valid data from the relevant sample will be used.

Note:

By introducing daily calorific values for calculations at the transmission system-level, the current practice of half-monthly manual sampling and gas analysing in an accredited laboratory has been abandoned so half-monthly reports on laboratory gas quality analyses are no longer available.

The data on the gas composition at all sampling locations are available on the web page of the transmission system operator in tabular form.

Moreover, calculated weighted net calorific values for exits from the transmission system towards distribution systems for half-monthly and monthly billing periods are published on the web page.