



ΥΠΟΥΡΓΕΙΟ ΕΞΩΤΕΡΙΚΩΝ
B1 Διεύθυνση
Σχεδιασμού Εξωστρέφειας και Συντονισμού
Φορέων Εξωστρέφειας

ΑΔΙΑΒΑΘΜΗΤΟ
ΚΑΝΟΝΙΚΟ

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Αθήνα, 9 Μαΐου 2024
Α.Π.: 24962

ΠΡΟΣ : - ΠΙΝΑΚΑ ΑΠΟΔΕΚΤΩΝ

ΚΟΙΝ.: - Πρεσβεία Κιέβου
- Γενικό Προξενείο Οδησσού
- Enterprise Greece-EG
Υπ' όψιν Δ/ντος Συμβούλου κ. Μ. Γιαννόπουλου

(χ.σ.)

Ε.Δ.: - Διπλ. Γραφείο κ. Πρωθυπουργού
- Διπλ. Γραφείο κ. Υπουργού
- Διπλ. Γραφείο Υφυπουργού κας Παπαδοπούλου
- Διπλ. Γραφείο Υφυπουργού κ. Φραγκογιάννη
- Γραφείο κας Γεν. Γραμματέως ΔΟΣ & Εξωστρέφειας
- Α', Β' και Ζ' Γενικές Δ/σεις
- Α5, Β4, Β7, Ζ3 Δ/σεις

(χ.σ.)

ΘΕΜΑ: Αίτημα Ουκρανίας για προμήθεια εξοπλισμού παραγωγής και διαχείρισης ενέργειας

ΣΧΕΤ.: Μήνυμα ηλεκτρ. ταχυδρομείου Ζ3 Δ/σης από 2.5.2024 (μ.π.ο.)

Σε συνέχεια ανωτέρω σχετικού, σας ενημερώνουμε ότι η Πρεσβεία της Ουκρανίας στην Ελλάδα αιτήθηκε, μέσω Ρηματικής Διακοίνωσης, τη συνδρομή της χώρας μας για προμήθεια εξοπλισμού παραγωγής και διαχείρισης ενέργειας προς την πόλη Χάρκοβο.

Διαβιβάζουμε, συνημμένως, λίστα του αιτούμενου εξοπλισμού, η οποία περιλαμβάνει μονάδες συμπαραγωγής ενέργειας, λέβητες και μονάδες ηλεκτροπαραγωγής με αεριοστρόβιλο.

Παρακαλούμε για την ενημέρωση των επιχειρήσεων-μελών σας που κατασκευάζουν ή εμπορεύονται ανάλογο εξοπλισμό. Σε περίπτωση εκδήλωσης ενδιαφέροντος, οι ελληνικές εταιρείες μπορούν να γνωρίσουν διαθεσιμότητά τους στη Ζ3 Δ/ση του Υπουργείου Εξωτερικών στο e-mail: dz3@mfa.gr.

Ο Διευθυντής

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ΑΔΙΑΒΑΘΜΗΤΟ

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Equipment of Municipal Enterprise "Kharkiv Heat Networks"

No.	Description	Address	Capacity (MW)	Quantity (pcs.)
1	CBH package	CBH No. 1	8	1
2	CBH package	CBH No. 2	0,6	1
3	CBH package	CBH No. 3	6	1
4	CBH package	CBH No. 4	4,2	1
5	CBH package	CBH No. 5	2,2	1
6	CBH package	CBH No. 6	1	1
7	CBH package	CBH No. 7	1,6	1
8	CBH package	CBH No. 8	0,6	1
9	CBH package	CBH No. 9	0,1	1
10	CBH package	CBH No. 10	3	1

10	CBH package	CBH No. 11	1,5	1
11	CBH package	CBH No. 12	0,6	1
12	CBH package	CBH No. 13	0,2	1
13	CBH package	CBH No. 14	0,6	1
14	CBH package	CBH No. 15	4	1
15	CBH package	CBH No. 16	12	1
16	CBH package	CBH No. 17	12	1
17	CBH package	CBH No. 18	12	1
18	CBH package	CBH No. 19	12	1
19	CBH package	CBH No. 19	12	1

20	CBH package	CBH No. 20	24	1
21	CBH package	CBH No. 21	24	1
22	CBH package	CBH No. 22	24	1
23	CBH package	CBH No. 23	24	1
24	CBH package	CBH No. 24	8	1
25	CBH package	CBH No. 25	8	1
26	CBH package	CBH No. 26	8	1
27	CBH package	CBH No. 27	12	1
28	CBH package	CBH No. 28	12	1

29	CBH package	CBH No. 29	12	1
	Total		250.2	30

Note: References to a specific trade mark, firm, source of origin or manufacturer should read in conjunction

Container Boiler Houses (CBH)

Equipment for connecting through gas distribution net

Gas meter size*	Metering unit*
S3F Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet
Delta Compact G-40 DN50 (1:200) min 0,3 max 65	Gas metering cabinet
S3F Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet
G-250 Delta2100 G-250 DN100 (1:160) min 2,5 max 4000	Gas metering cabinet
G-100 ± Delta SE G-100 DN80 (1:200) min 0.8 max 160	Gas metering cabinet
G-65 Delta SE G-65 DN50 (1:200) min 0.5 max 100	Gas metering cabinet
G-100 Delta SE G-100 DN80 (1:200) min 0.8 max 160	Gas metering cabinet
Delta Compact G-40 DN50 (1:200) min 0,3 max 65	Gas metering cabinet
G-10 DN50 Delta Compact (1:50) min 0,3 max 16	Gas metering cabinet
РД+G-10на НТ	Gas metering cabinet

G-160 Delta SE G-160 DN80 (1:200) min 1.3 max 250	Gas metering cabinet
G-100 Delta SE G-100 DN80 (1:200) min 0.8 max 160	Gas metering cabinet
Delta Compact G-40 DN50 (1:200) min 0,3 max 65	Gas metering cabinet
G-16 ± Delta Compact G-16 DN50 (1:100) min 0,25 max 25	Gas metering cabinet
Delta Compact G-40 DN50 (1:200) min 0,3 max 65	Gas metering cabinet
G-250 Delta2100 G-250 DN100 (1:160) min 2,5 max 4000	Gas metering cabinet
G-650 S3F Delta G-650 DN150 (1:200) min 5 max 1000	Gas metering cabinet
S3F Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet
S3F Delta G-400 DN150 (1:160) min 4 max 651	Gas metering cabinet
G-650 S3F Delta G-650 DN150 (1:200) min 5 max 1000	Gas metering cabinet

G-1600 Flowsic 600 G-1600* DN200 (1:80) min 32 max 2500	Gas metering cabinet
G-1600 Flowsic 600 G-1600* DN200 (1:80) min 32 max 2500	Gas metering cabinet
G-1600 Flowsic 600 G-1600* DN200 (1:80) min 32 max 2500	Gas metering cabinet
G-1600 Flowsic 600 G-1600* DN200 (1:80) min 32 max 2500	Gas metering cabinet
S3F Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet
S3F Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet
S3F Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet
G-650 S3F Delta G-650 DN150 (1:200) min 5 max 1000	Gas metering cabinet
G-650 S3F Delta G-650 DN150 (1:200) min 5 max 1000	Gas metering cabinet

G-650 S3F Delta G-650 DN150 (1:200) min 5 max 1000	Gas metering cabinet
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1 with "or equivalent"

works

Gas pressure regulating cabinet (GPRC)*
GPRC - 9/15 - 2L - 100x150 - 3/3 MBN-QA DN65x100 PN16 + OS/66-AP
GPRC - 4/4 - 2L - 40x50 - 3/3 S21 MP 1" x 1 1/2"
GPRC - 8/13 - 2L - 80x125 - 3/3 MBN-QA DN65x100 PN16 + OS/66-AP
GPRC - 7/10 - 2L - 65x100 - 3/3 MBN-QA DN50x100 PN16 + OS/66-AP
GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DN50 PN16 + OS/66-AP
GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DN50 PN16 + OS/66-AP
GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DN50 PN16 + OS/66-AP
GPRC - 4/4 - 2L - 40x50 - 3/3 S21 MP 1" x 1 1/2"
GPRC - 2/2 - 2L - 25x32 - 3/3 HP 100B AP/B 1"x1" Rp
GPRC c FE25 and G10

GPRC - 6/8 - 2L - 65x80 - 3/3 MBN-QA DN40x80 PN16 + OS/66-AP

GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DN50 PN16 + OS/66-AP

GPRC - 4/4 - 2L - 40x50 - 3/3 S21 MP 1" x 1 1/2"

GPRC - 2/2 - 2L - 25x32 - 3/0,05 S7 - 50 BP

GPRC - 4/4 - 2L - 40x50 - 3/3 S21 MP 1" x 1 1/2"

GPRC - 7/10 - 2L - 65x100 - 3/3 MBN-QA DN50x100 PN16 + OS/66-AP

GPRC - 10/16 - 2L - 150x200 - 3/3 MBN-QA DN80x150 PN16 + OS/66-AP

GPRC - 10/16 - 2L - 150x200 - 6/3 MBN-QA DN65x100 PN16 + OS/66-AP

GPRC - 10/16 - 2L - 150x200 - 6/3 MBN-QA DN65x100 PN16 + OS/66-AP

GPRC - 10/16 - 2L - 150x200 - 3/3 MBN-QA DN80x150 PN16 + OS/66-AP

GPRC - 11/17 - 2L - 200x250 - 3/3 REVAL 182/G DN100
PN16 + 201/A + SA-91

GPRC - 11/17 - 2L - 200x250 - 3/3 REVAL 182/G DN100
PN16 + 201/A + SA-92

GPRC - 11/17 - 2L - 200x250 - 3/3 REVAL 182/G DN100
PN16 + 201/A + SA-93

GPRC - 11/17 - 2L - 200x250 - 3/3 REVAL 182/G DN100
PN16 + 201/A + SA-94

GPRC - 9/15 - 2L - 100x150 - 3/3 MBN-QA DN65x100
PN16 + OS/66-AP

GPRC - 9/15 - 2L - 100x150 - 3/3 MBN-QA DN65x100
PN16 + OS/66-AP

GPRC - 9/15 - 2L - 100x150 - 3/3 MBN-QA DN65x100
PN16 + OS/66-AP

GPRC - 10/16 - 2L - 150x200 - 3/3 MBN-QA DN80x150
PN16 + OS/66-AP

GPRC - 10/16 - 2L - 150x200 - 3/3 MBN-QA DN80x150
PN16 + OS/66-AP

GPRC - 10/16 - 2L - 150x200 - 3/3 MBN-QA DN80x150
PN16 + OS/66-AP

Equipment for connecting through power distribution networks
Power equipment and cable products*
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.; power transformer - 6/0,4 кV 1 МВА
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.; power transformer - 6/0,4 кV 1 МВА
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.; power transformer - 6/0,4 кV 1 МВА
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 1 pc.;
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 1 pc.;
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;
Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" —

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.; power transformer - 6/0,4 кV 1 МВА

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.; power transformer - 6/0,4 кV 1 МВА

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.; power transformer - 10/0,4 кV 1 MBA

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.; power transformer - 10/0,4 кV 1 MBA

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.; power transformer - 10/0,4 кV 1 MBA

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.; power transformer - 10/0,4 кV 1 MBA

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" — 2 pcs.;

Power cables "ААБл 1 4x120" 0,2 km; panel equipment "ЩО-90" —
2 pcs.;

Equipment for cogeneration units (CGU)

Equipment of Municipal Enterprise "Kharkiv Heat Networks"		Equipment for connecting through gas distribution networks			Equipment for connecting through power distribution networks	
No.	CGU capacity 50 kW	Gas meter size*	Metering unit*	Gas pressure regulating cabinet (GPRC)*	Equipment for connecting through power distribution networks	Equipment for connecting through power distribution networks (high-voltage transmission lines)
1	100	Delta Compact G25 DNS50 (1:160) min 0,25	Gas metering cabinet	GPRC - 4/4 - 2L - 40x50 - 3/3 B/240- AP 1 1/2"x1 1/2" + OS/66- AP (Tartarini)		
2	120	Delta Compact G25 DNS50 (1:160) min 0,25	Gas metering cabinet	GPRC - 4/4 - 2L - 40x50 - 3/3 B/240- AP 1 1/2"x1 1/2" + OS/66- AP (Tartarini)		
3	150	Delta Compact G-40 DNS50 (1:200) min 0,3 max 65	Gas metering cabinet	GPRC - 4/4 - 2L - 40x50 - 3/3 B/240- AP 1 1/2"x1 1/2" + OS/66- AP (Tartarini)		
4	220	G-65 Delta SE G-45 DNS50 (1:200) min 0,5 max 100	Gas metering cabinet	GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DNS50 PNI6 + OS/66- AP		
5	200	Delta Compact G-40 DNS50 (1:200) min 0,3 max 65	Gas metering cabinet	GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DNS50 PNI6 + OS/66- AP		
6	1000	G-250 Delta2100 G-250 DN100 (1:160) min 2,5 max 400	Gas metering cabinet	GPRC - 7/10 - 2L - 65x100 - 3/3 MBN- QA DNS50x100 PNI6 + OS/66-AP	Power cables "10 3x240 mm ² " 1,65 km; power transformer - 6/0,4 kV 1 MBA	
7	1000	G-250 Delta2100 G-250 DN100 (1:160) min 2,5 max 400	Gas metering cabinet	GPRC - 7/10 - 2L - 65x100 - 3/3 MBN- QA DNS50x100 PNI6 + OS/66-AP	Power cables "10 3x240 mm ² " 1,65 km; transformer substation consisting of: power transformer-10/0,4 kV 630 KBA; high-voltage load switches - 3 pcs; panel equipment "TLO-90" - 3 pcs; power transformer TMT-6/0,4 kV 1 MBA	A total of 5 pcs. of 10 kV cells including: A relay protection and automation (RPA) panel with a microprocessor device and power direction - 1 pc. Vacuum switch 1 pc.; Surge arresters nonlinear - 3 pcs.
8	1000	G-250 Delta2100 G-250 DN100 (1:160) min 2,5 max 400	Gas metering cabinet	GPRC - 7/10 - 2L - 65x100 - 3/3 MBN- QA DNS50x100 PNI6 + OS/66-AP	Transformer substation consisting of: power transformer TMT-6/0,4 kV 630 KBA; high-voltage load switches - 3 pcs; panel equipment "TLO-90" - 3 pcs; power cables "AAEn 10 3x240 mm ² " 1,65 km; "AAEn 10 3x120 mm ² " 2 km; power	Current transformer - 3 pcs; Power cables "KBBT-Enr 4*2,5" - 0,75km; "KBBT-Enr 10*2,5" - 0,75km; "TB-1 2,5" - 1,0km
9	6000	FLOWSiC600 G1600 DN250 (1:50) min 50 max2500	Gas metering cabinet	GPRC - 11/17 - 2L - 200x250 - 3/3 BFL DN100 PNI6 + PS/79-2 + OS/80X-BPA	Power cable "AumErally-15 1*500/70 mm ² " 2,3 km.	

10	1500	SSE Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet	GPRC - 2L - 100X125 - 3/3 MBN- QA DN65X100 PN16 + OS/66-AP	Transformer substation, consisting of: power transformer TMT-6/0,4 kV 630 KBA; high-voltage load switches - 3 pcs; panel equipment "IIO-90" - 3 pcs.; power cables "AABa 10 3x240 mm ² " 1,65 km; "AABa 10 3x120 mm ² " 2 km; power	A total of 10 pcs. of 10 kV cells including: A relay protection and automation (RPA) panel with a microprocessor device and power direction - 1 pc. Vacuum switch 1 pc.; Surge arresters nonlinear - 3 pcs.;
11	9000	FLOW/SIC 600 G2500 DN300 (1:50) min 80 max 4000	Gas metering cabinet	GPRC - 12/18 - 2L - 250X300 - 3/3 FL + MB5 DN150 PN16 + PS/79-2 + OS/80X-BPA	Transformer substation consisting of: power transformer TMT-6/10 kV 2,5 MBA - 1 pc.; vacuum switch cells - 4 pcs.; power cables "AmEraldy-15 1*500/70 mm ² " 6 km.; Outdoor switchgear consisting of: vacuum switch cells - 5 pcs.; voltage transformer cell - 1 pc.; Surge arresters nonlinear - 5 pcs.; power transformers TMT-	Current transformer -3 pcs; Power cables "KBBTEar 4*2,5" -1,5km ; "KBBTEar 10*2,5"-1,5km; "TB-1 2,5" -2,0km
12	1500	SSE Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet	GPRC - 2L - 100X125 - 3/3 MBN- QA DN65X100 PN16 + OS/66-AP	Power cables "AABa 10 3x240 mm ² " 1,65 km; transformer substation consisting of: power transformer-10/0,4 kV 630 KBA;	
13	1500	SSE Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet	GPRC - 2L - 100X125 - 3/3 MBN- QA DN65X100 PN16 + OS/66-AP	Power cables "AABa 10 3x240 mm ² " 1,65 km	
14	1500	SSE Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet	GPRC - 2L - 100X125 - 3/3 MBN- QA DN65X100 PN16 + OS/66-AP	Power cables "AABa 10 3x240 mm ² " 1,65 km	A total of 3 pcs. of 10 kV cells including: A relay protection and automation (RPA) panel with a microprocessor device and power direction - 1 pc. Vacuum switch 1 pc.; Surge arresters nonlinear - 3 pcs.;
15	1500	SSE Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet	GPRC - 2L - 100X125 - 3/3 MBN- QA DN65X100 PN16 + OS/66-AP	Transformer substation consisting of: power transformer TMT-6/0,4 kV 630 KBA; high-voltage load switches - 3 pcs; panel equipment "IIO-90" - 3 pcs.; power cables "AABa 10	Power cables "KBBTEar 4*2,5" -0,45km ; "KBBTEar 10*2,5"-0,45km; "TB-1 2,5" -0,06km
16	11000	FLOW/SIC 600 G2500 DN300 (1:50) min 80 max 4000	Gas metering cabinet	GPRC - 12/18 - 2L - 250X300 - 3/3 FL + MB5 DN150 PN16 + PS/79-2 + OS/80X-BPA	Transformer substation consisting of: power transformer TMT-6/10 kV 2,5 MBA - 1 pc.; vacuum switch cells - 4 pcs.; power cables "AmEraldy-15 1*500/70 mm ² " 2,3 km.; Outdoor switchgear consisting of: vacuum switch cells - 5 pcs.; voltage transformer cell - 1 pc.; Surge arresters nonlinear - 5 pcs.; power transformer TMT-	
17	3500	FLOW/SIC 600 G1000 DN200 (1:30) min 50 max 1600	Gas metering cabinet	GPRC - 10/16 - 2L - 150X200 - 3/3 MBN-QA DN100X200 PN16 + OS/66-AP	Power cables "AABa 10 3x240 mm ² " 1,65 km; transformer substation consisting of: power transformer-10/0,4 kV 630 KBA;	
18	250	G-65 Delta SE G-65 DNS0 (1:200) min 0,5	Gas metering cabinet	GPRC - 5/5 - 2L - 50X65 - 3/3 A/149-AP DNS0 PN16 + OS/66-AP	Power cables "AABa 10 3x240 mm ² " 1,65 km	
19	250	G-65 Delta SE G-65 DNS0 (1:200) min 0,5	Gas metering cabinet	GPRC - 5/5 - 2L - 50X65 - 3/3 A/149-AP DNS0 PN16 + OS/66-AP	Power cables "AABa 10 3x240 mm ² " 1,65 km	A total of 7 pcs. of 10 kV cells including: A relay protection and automation (RPA) panel with

20	250	G-65 Delta SE G-65 DNS0 (1:200) min 0,5	Gas metering cabinet	GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DNS0 PN16 + OS/66-AP	Power cables "AABr 10 3x240 mm2" 1,65 km	A microprocessor device and power direction - 1 pc. Vacuum switch 1 pc. Surge arresters nonlinear - 3 pcs. Current transformer - 3 pcs. Power cables "KBBT EAr 4*2,5" 1,05km; "KBBT EAr 10*2,5"-1,05km; "IIB-1 2,5" - 1,4km
21	3000	TZ/FLUXI G650 DN200 (1:20) min 50 max 1000 Delta only D200 S3F Delta G-650 DN150 (1:200) min 5	Gas metering cabinet	GPRC - 10/16 - 2L - 150x200 - 3/3 MBN-QA DN100x200 PN16 + OS/66-AP	Transformer substation consisting of: power transformer TMI-6/0,4 kV 630 KBA; high-voltage load switches - 3 pcs; panel equipment "IIO-90" - 3 pcs.; power cables "AunEArly-15 1*500/70 mm2" 2,3 km.; "AABr 10 3x120 mm2" 2 km;	A total of 3 pcs. of 10 kV cells including: A relay protection and automation (RPA) panel with a microprocessor device and power direction - 1 pc. Vacuum switch 1 pc.; Surge arresters nonlinear - 3 pcs.; Current transformer - 3 pcs.
22	8000	FLOW/SIC600 G2500 DN300 (1:50) 80 min max 4000	Gas metering cabinet	GPRC - 12/18 - 2L - 250x300 - 3/3 FL + MB5 DN150 PN16 + PS/79-2 + OS/80X- BPA	Transformer substation consisting of: power transformer TMI-6/10 kV 2,5 MBA - 1 pc.; vacuum switch cells - 4 pcs.; power cables "AunEArly-15 1*500/70 mm2" 6 km.; Outdoor switchgear consisting of: vacuum switch cells - 5 pcs.; voltage transformer cell - 1 pc.; Surge arresters nonlinear - 5 pcs.; power transformers TMI - 6/0,4 kV 1 MBA; TMI-10/0,4 kV 1 MBA	A total of 5 pcs. of 10 kV cells including: A relay protection and automation (RPA) panel with a microprocessor device and power direction - 1 pc. Vacuum switch 1 pc.; Surge arresters nonlinear - 3 pcs.; Current transformer - 3 pcs.
23	2000	S3F Delta G-400 DN150 (1:160) min 4 max 650	Gas metering cabinet	GPRC - 9/15 - 2L - 100x150 - 3/3 MBN- QA DN65x100 PN16 + OS/66-AP	Transformer substation consisting of: power transformer TMI-6/0,4 kV 630 KBA; high-voltage load switches - 3 pcs; panel equipment "IIO-90" - 3 pcs.; power cables "AABr 10 3x240 mm2" 1,65 km.; "AABr 10 3x120 mm2" 2 km.; Outdoor switchgear consisting of: vacuum switch cells - 5 pcs; voltage transformer cell - 1 pc.; Surge arresters nonlinear - 5	A total of 5 pcs. of 10 kV cells including: A relay protection and automation (RPA) panel with a microprocessor device and power direction - 1 pc. Vacuum switch 1 pc.; Surge arresters nonlinear - 3 pcs.; Current transformer - 3 pcs.; Power cables "KBBT EAr 4*2,5" - 0,45km;
24	300	G-65 Delta SE G-65 DNS0 (1:200) min 0,5	Gas metering cabinet	GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DNS0 PN16 + OS/66- AP	Power cables "AABr 1 4x120 mm2" 0,2 km	
25	700	FLOW/SIC500 G160 DN100 (1:50) min max 250 G-160 DNS80 (1:200) min 1,3 max 250	Gas metering cabinet	GPRC - 6/8 - 2L - 65x80 - 3/3 MBN-QA DNA0x80 PN16 + OS/66-AP	Power cables "AABr 1 4x120 mm2" 0,2 km.; transformer substation consisting of: power transformer-10/0,4 kV 630 KBA; high-voltage load switches - 3 pcs; panel equipment "IIO-90" - 3 pcs.;	
26	700	FLOW/SIC500 G160 DN100 (1:50) min max 250 (Delta SE G-160 DNS80 (1:200) min 1,3 max 250	Gas metering cabinet	GPRC - 6/8 - 2L - 65x80 - 3/3 MBN-QA DNA0x80 PN16 + OS/66-AP	Power cables "AABr 1 4x120 mm2" 0,2 km.; transformer substation consisting of: power transformer-10/0,4 kV 630 KBA; high-voltage load switches - 3 pcs; panel equipment "IIO-90" - 3 pcs.;	

27	200	Delta Compact G-40 DNS50 (1:200) min 0,3 <small>max 2,5</small>	Gas metering cabinet	GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DNS50 PN16 + OS/66- AP		
28	200	Delta Compact G-40 DNS50 (1:200) min 0,3 <small>max 2,5</small>	Gas metering cabinet	GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DNS50 PN16 + OS/66- AP		
29	300	G-65 Delta SE G-65 DNS50 (1:200) min 0,5 <small>max 1,00</small>	Gas metering cabinet	GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DNS50 PN16 + OS/66- AP		
30	250	G-65 Delta SE G-65 DNS50 (1:200) min 0,5 <small>max 1,00</small>	Gas metering cabinet	GPRC - 5/5 - 2L - 50x65 - 3/3 A/149-AP DNS50 PN16 + OS/66- AP		
31	70	Delta Compact G16 DNS50 (1:100) min 0,25 <small>max 2,5</small>	Gas metering cabinet	GPRC - 2/2 - 2L - 25x32 - 3/3/74-AP 3/4"x1/4"		
32	70	Delta Compact G16 DNS50 (1:100) min 0,25 <small>max 2,5</small>	Gas metering cabinet	GPRC - 2/2 - 2L - 25x32 - 3/3/74-AP 3/4"x1/4"		
33	70	Delta Compact G16 DNS50 (1:100) min 0,25 <small>max 2,5</small>	Gas metering cabinet	GPRC - 2/2 - 2L - 25x32 - 3/3/74-AP 3/4"x1/4"		
34	70	Delta Compact G16 DNS50 (1:100) min 0,25 <small>max 2,5</small>	Gas metering cabinet	GPRC - 2/2 - 2L - 25x32 - 3/3/74-AP 3/4"x1/4"		
35	70	Delta Compact G16 DNS50 (1:100) min 0,25 <small>max 2,5</small>	Gas metering cabinet	GPRC - 2/2 - 2L - 25x32 - 3/3/74-AP 3/4"x1/4"		
36	70	Delta Compact G16 DNS50 (1:100) min 0,25 <small>max 2,5</small>	Gas metering cabinet	GPRC - 2/2 - 2L - 25x32 - 3/3/74-AP 3/4"x1/4"		
37	70	Delta Compact G16 DNS50 (1:100) min 0,25 <small>max 2,5</small>	Gas metering cabinet	GPRC - 2/2 - 2L - 25x32 - 3/3/74-AP 3/4"x1/4"		
Total	57680					

Note: References to a specific trade mark, firm, source of origin or manufacturer should read in conjunction with "or equivalent"

Equipment of Municipal Enterprise "Kharkiv Heat Networks"		Gas turbine power units				Equipment for connecting through power distribution networks	
No.	Electric capacity	Output voltage	Gas meter size*	Metering unit*	Gas pressure regulating cabinet (GPRC)*	Additional compressor unit	Energy equipment
1	54 MW	11 kV	FLOWUSIC600 G4000 DN300 (1.100) min 65 max 6500 - 2 pcs. per unit	Gas metering cabinet FLOWUSIC600 - 2 pcs. per unit	Additional compressor unit and GPRC - 2L - 500x600 - 3/3 FL + MBS DN250 PN16 + PS/79-2 + OS/80X-BPA are needed	Increase from 0.15 MPa to 0.6 MPa	<p>A 110kV cell including: 110 kV electric gas switch - 1 pc; 110 kV disconnecter - 2 pcs.; Surge arresters nonlinear - 3 pcs.; 110 kV current transformer - 3 pcs.; A relay protection and automation (RPA) panel with a microprocessor device and power direction + alarm system - 1 pc.; Backup protection panel - 1 pc.; control panel - 1 pc.; power cables "KBBT EHR" 4*2.5" - 2.5km, "KBBT EHR" 19*2.5" - 2km, "KBBT EHR" 10*2.5" - 2.5km, "KBBT EHR" 4*7" - 2km, "AC-240" 2km, blocking relay - 10 pcs.; cable trays - 200 pcs.; external man-machine devices - 10 pcs.; suspended insulation LK-110 kV-100 pcs.; line traps - 10 pcs.; accounting devices - 70 pcs.; terminal block (TM and TV)-31pcs.; current-limiting reactors-6 pcs.; portal racks-8 pcs.; portal rack jumpers- 4 pcs.; line fittings -100v</p>
2	40 MW	11 kV	FLOWUSIC600 G4000 DN300 (1.100) min 65 max 6500 - 2 pcs. per unit	Gas metering cabinet FLOWUSIC600 - 2 pcs. per unit	Additional compressor unit and GPRC - 2L - 500x600 - 3/3 FL + MBS DN250 PN16 + PS/79-2 + OS/80X-BPA are needed	Increase from 0.15 MPa to 0.6 MPa	
3	40 MW	11 kV	FLOWUSIC600 G4000 DN300 (1.100) min 65 max 6500 - 2 pcs. per unit	Gas metering cabinet FLOWUSIC600 - 2 pcs. per unit	Additional compressor unit and GPRC - 2L - 500x600 - 3/3 FL + MBS DN250 PN16 + PS/79-2 + OS/80X-BPA are needed	Increase from 0.15 MPa to 0.6 MPa	
4	40 MW	11 kV	FLOWUSIC600 G4000 DN300 (1.100) min 65 max 6500 - 2 pcs. per unit	Gas metering cabinet FLOWUSIC600 - 2 pcs. per unit	Additional compressor unit and GPRC - 2L - 500x600 - 3/3 FL + MBS DN250 PN16 + PS/79-2 + OS/80X-BPA are needed	Increase from 0.15 MPa to 0.6 MPa	

Note: References to a specific trade mark, firm, source of origin or manufacturer should read in conjunction with "or equivalent!"