Invitation to Partner
with QazaqGaz National Company or its affiliate,
to design and invest in 2 and/or 6 BCMA raw gas processing plants in Kazakhstan

1. About QazaqGaz

QazaqGaz National Company JSC (hereinafter **"QazagQaz",** former name "KazTransGas" JSC) – is the largest gas supply company in the Republic of Kazakhstan, representing the interests of the state on domestic gas market and worldwide.

The sole shareholder of QazaqGaz is Sovereign Wealth Fund «Samruk-Kazyna» JSC.

QazagGaz operates natural gas transport via main gas pipelines, sales natural gas on domestic and foreign markets, develops, finances, constructs and maintains pipelines and gas storages.

In the management of QazaqGaz is a huge gas transportation system, which includes:

- 76 thousand kilometers of gas distribution networks,
- 20 thousand kilometers of main gas pipelines,
- 56 compressor stations that have installed 348 gas compressor units,
- 3 underground gas storages.

Group of Companies of QazaqGaz includes 12 subsidiaries and jointly controlled entities, which are represented in the following business areas.

Gas resources:

- Amangeldy Gas LLP,
- KMG Kamsu Operating LLP,
- Otan Gas LLP;

Main gas transportation:

- InterGas Central Asia JSC,
- Asia Gas Pipeline LLP,
- Beineu-Shymkent Gas Pipeline LLP,

- KazTransGas-Bishkek LLC;

Wholesale and retail sales of gas:

- KazTransGas Aimak JSC,
- KazRosGas LLP (50% interest in the trust management);

Service companies:

- KazTransGas Onimderi LLP,
- KTG Finance B.V.,
- KazMunayGas-Service NS JSC.

In 2020 QazaqGaz signed an agreement with NCOC for evacuation and processing of the raw sour gas from Kashagan field. The capacity of the plant is to be up to 1 billion cubic meters of raw sour gas per year, from which 815 million cubic meters of commercial and 119 thousand tons of liquefied gas, 212 thousand tons of sulfur and 35 thousand tons of gas condensate will be produced.

QazaqGaz plans to further expand cooperation with NCOC in the framework of future Kashagan growth projects and currently negotiating technical and commercial conditions for supply to QazaqGaz of 2 BCMA (from NCOC's Phase 2A project) and 6 BCMA (from NCOC's Phase 2B project) of raw sour gas from the Kashagan field in next couple of years. It is important for QazaqGaz to cooperate with reputable entity with strong technical expertise for potential execution of the large-scale gas processing project in the Atyrau region of west Kazakhstan.

2. Partner's project scope

a. To provide a qualified project management team with solid expertise in raw sour gas processing plant that is also accessible by QazaqGaz and contribute to enhancing QazaqGaz' in-house gas processing expertise.

b. To **design, finance, build, operate and maintain (option 1)** in its entirety, the facilities and related infrastructure needed to process 2 BCMA and/or 6 BCMA of raw sour gas owned by QazaqGaz to obtain processed gas that conforms to RoK's technical standards or **to design, finance and build only (option 2)** within the schedule defined in Attachment B, including:
    i. Facilities capable of taking the raw sour gas at the transfer point(s) agreed with NCOC
    ii. Plant facilities (including gas processing units, metering, flare and facilities for handling, storage, loading and transportation of any products separated or extracted from the raw sour gas and for adequate disposal of resulting wastes)

iii. A processed gas pipeline and other related facilities required for transportation of the processed gas to the main QazaqGaz pipeline system.

c. To deliver the processed gas to QazaqGaz for further commercialization and potentially buy a part of the processed gas under a commercial arrangement to be finalized with QazaqGaz during the design phase of the project.

d. To handle and potentially buy the side-products of gas processing (condensate, sulphur, and LPG) under a commercial arrangement to be finalized with QazaqGaz during the design phase of the project.

3. QazaqGaz' project scope

a. To secure a reliable supply of RoK's raw sour gas in the volumes of 2 BCMA and/or 6 BCMA from NCOC as the operator of Kashagan field in Kazakhstan.

b. To offtake the processed gas for the purpose of sales in the market.

c. To provide the land plot in Atyrau region for the facilities and related infrastructure needed to process 2 BCMA and/or 6 BCMA of raw sour gas.

d. To secure (or help secure) all the required regulatory approvals needed for the construction and operation of the facilities and related infrastructure needed to process 2 BCMA and/or 6 BCMA of raw sour gas.

4. Invitation for a Partnership Proposal

Interested entities are invited to provide a comprehensive Partnership Package to QazaqGaz by 15 August 2022 that includes:

a. Statement of interest to partner for the 2 BCMA, 6 BCMA, or 2 BCMA and 6 BCMA project(s).

b. Description of the legal entity proposing to be the Partner, including track record demonstrating financial and technical capabilities to design, build, and maintain the gas processing plants.

c. Preferred structure of the venture arrangements e.g. a joint venture with QazaqGaz (if so, what is the proposed equity split), an Engineering-Build-Own-Operate-Maintain scheme, or other feasible/preferrable schemes of cooperation.

d. Preliminary confirmation on acceptance of the NCOC and QazaqGaz integrated project schedule and technical parameters as described in the Attachments to this Invitation to Partner.

e. Designated senior focal points who will be responsible in further discussion with QazaqGaz.

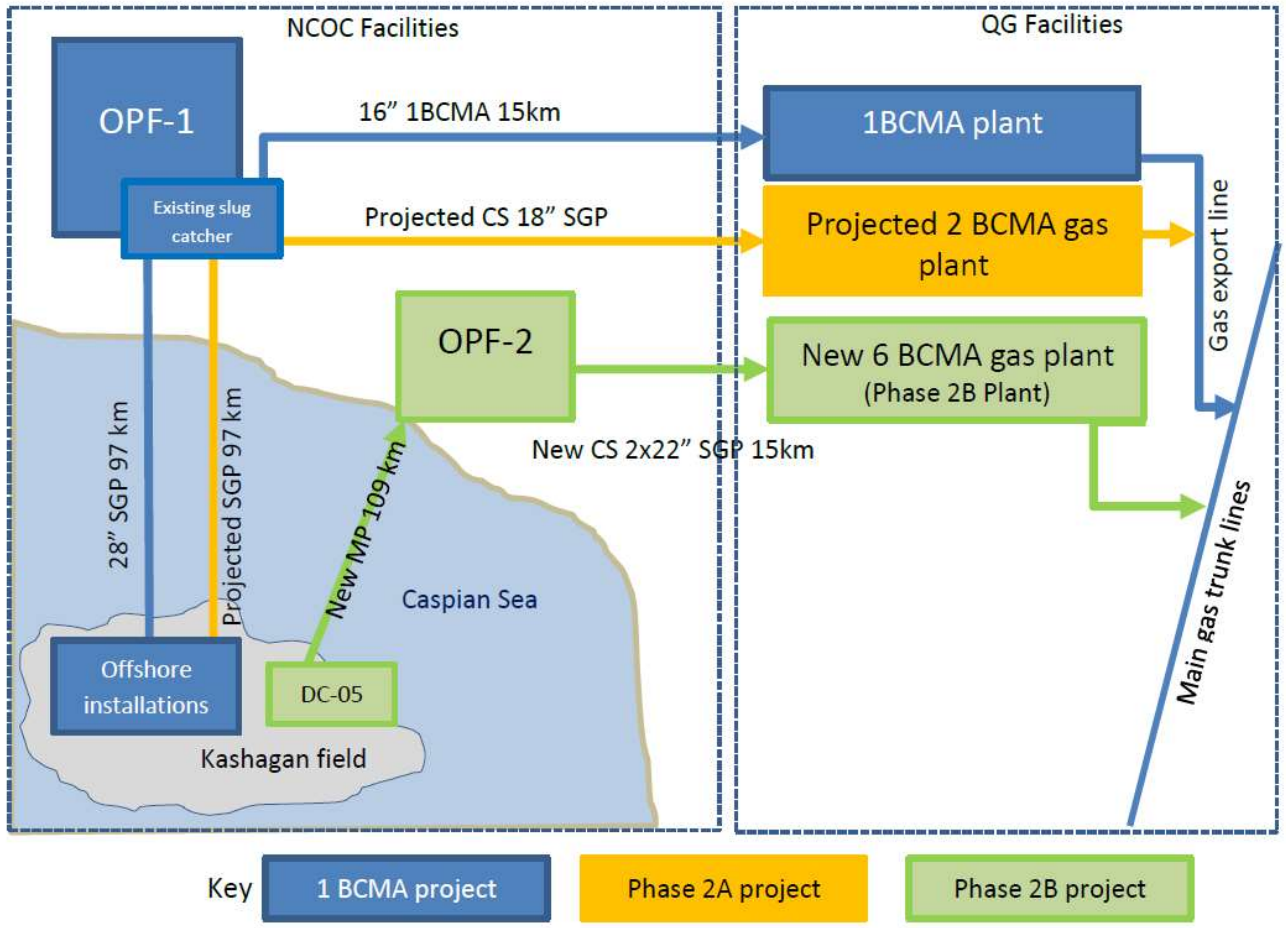
f. Any other elements of the Partnership that are considered important.

5. Attachments:

A. Project schematic
B. Preliminary project schedule(s) for 2 BCMA and 6 BCMA project(s)
C. Technical parameters of the gas for 2 and 6 BCMA project(s) (input and output)

Attachment A

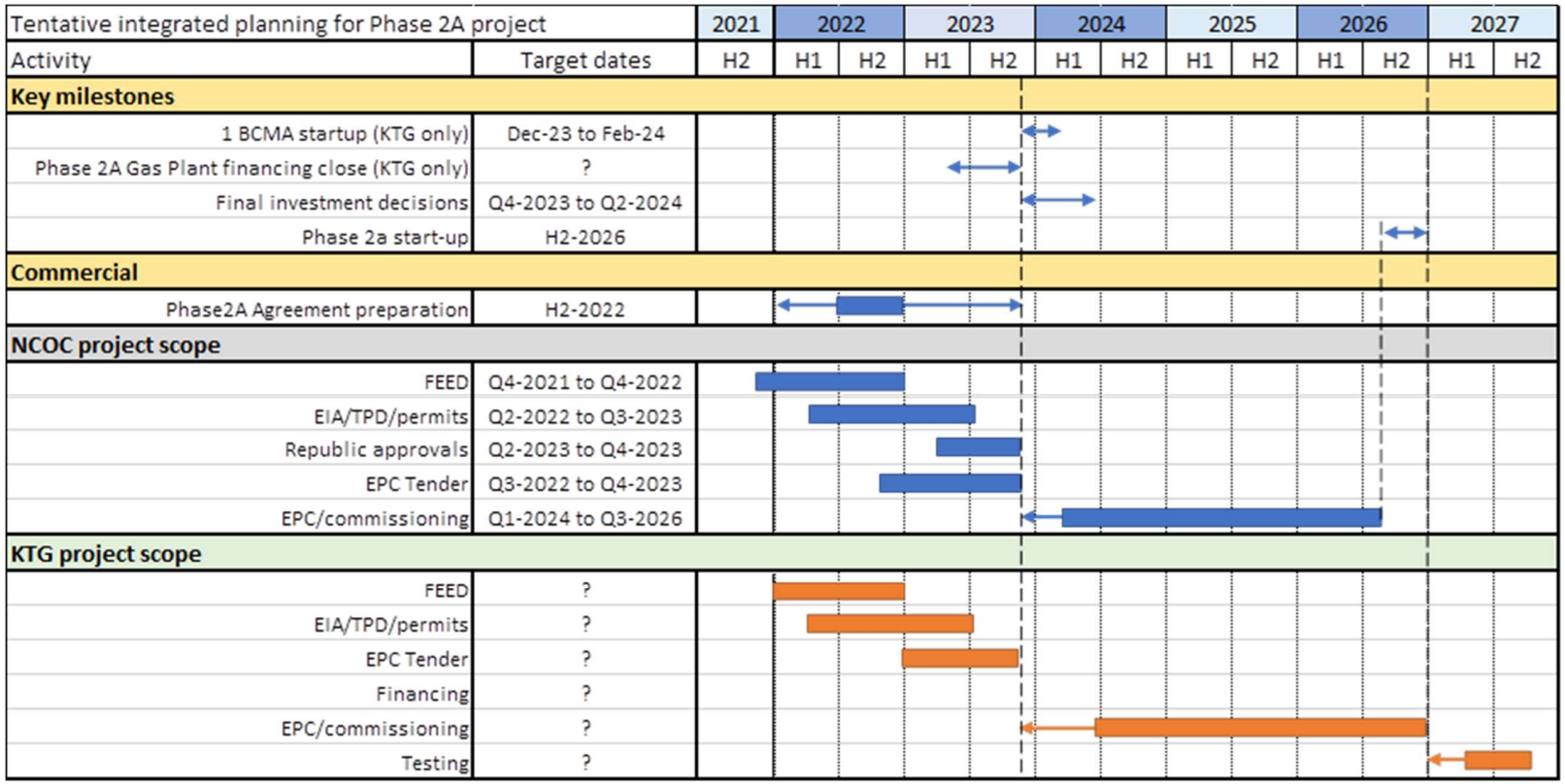
Project Schematic



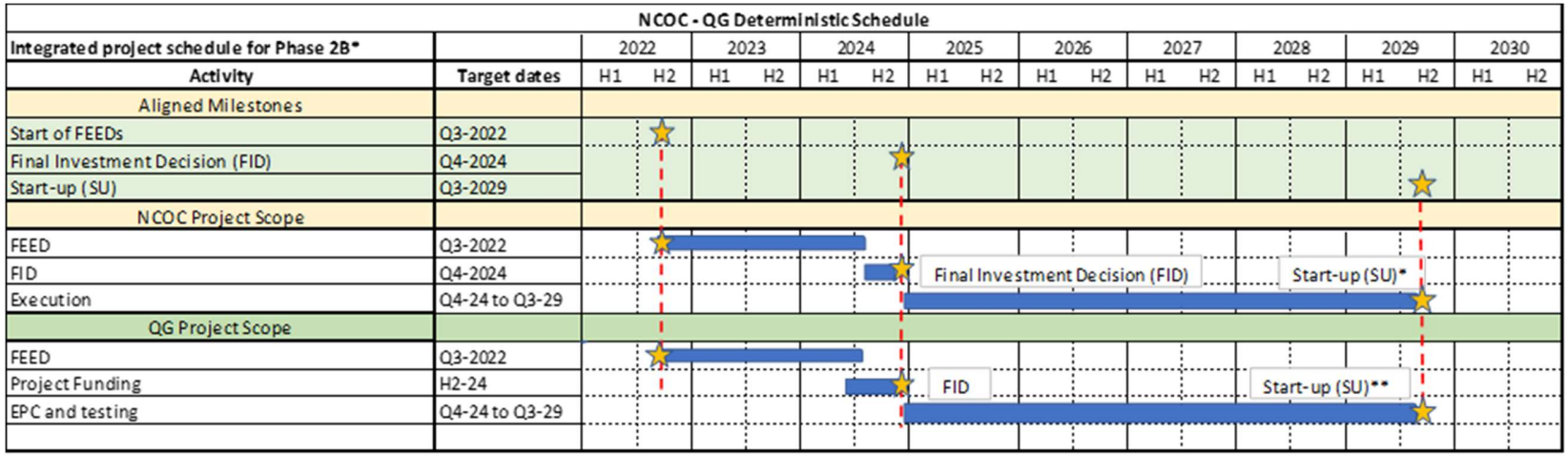
Attachment B

Preliminary project schedules of Phase 2A and Phase 2B

A. Phase 2A



B. Phase 2B



** NCOC Deterministic schedule assumes adoption of acceleration opportunities relative to Attachment 2 of NCOC Letter to KTG dated Oct. 27, 2021.*

** QG ready to receive and process full gas stream of 600 MMscfd.

Attachment C

A. Expected gas technical parameters for Phase 2A delivered from NCOC to QazagGaz.

		Gas Injection (RGI Running)			No Gas Injection (No RGI)		
	Design Composition Range [1]	**Summer**	**Winter**	**25 yr Forecast**	**Summer**	**Winter**	**25 yr Forecast**
Component	**Gas Composition in mol %**						
Nitrogen	1.207 % - 1.393%	1.265%	1.393%	1.227%	1.320%	1.207%	1.313%
CO2	4.912% - 6.000%	5.118%	4.912%	5.500%	5.465%	5.127%	6.000%
H2S	13.745% - 17.800%	14.579%	13.745%	15.745%	16.500%	15.519%	17.800%
Methane	59.096% - 66.884%	64.772%	66.884%	63.250%	61.009%	63.721%	59.096%
Ethane	7.725% - 9.336%	7.725%	7.778%	7.879%	9.153%	8.759%	9.336%
Propane	3.257% - 3.973%	3.417%	3.257%	3.446%	3.939%	3.677%	3.973%
IC4_1*	0.461% - 0.631%	0.626%	0.461%	0.631%	0.602%	0.480%	0.607%
NC4_1*	0.888% - 1.282%	1.271%	0.888%	1.282%	1.123%	0.903%	1.133%
IC5_1*	0.202% - 0.422%	0.422%	0.224%	0.357%	0.308%	0.202%	0.261%
NC5_1*	0.199% - 0.389%	0.389%	0.223%	0.329%	0.269%	0.199%	0.228%
C6_1*	0.123% - 0.240%	0.240%	0.147%	0.203%	0.190%	0.123%	0.161%
Benzene	0.002% - 0.005%	0.005%	0.002%	0.004%	0.004%	0.003%	0.003%
C7_1*	0.046% - 0.105%	0.105%	0.054%	0.089%	0.079%	0.046%	0.067%
Toluene	0.002% - 0.007%	0.007%	0.002%	0.006%	0.004%	0.002%	0.003%
C8_1*	0.016% - 0.046%	0.046%	0.017%	0.039%	0.027%	0.016%	0.023%
P-Xylene	0 % - 0.001%	0.001%	0.001%	0.001%	0.000%	0.001%	0.000%
E-Benzene	< 0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
C9_1*	0.002% - 0.015%	0.015%	0.002%	0.012%	0.007%	0.003%	0.006%
C10_1*	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%
C11_1*	< 0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
C12_1*	< 0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
C13_1*	< 0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
C14_1*	< 0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
CN1_2*	< 0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
CN2_2*	< 0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
CN3_2*	< 0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
M-Mercaptan in mg/Nm3	356 - 448	376	356	415	407	387	448
E-Mercaptan in mg/Nm3	171 - 202	179	171	197	184	176	202
nP-Mercaptan in mg/Nm3	52 - 77	71	68	77	52	52	58
nB-Mercaptan in mg/Nm3	31 - 34	31	31	34	31	31	34
CS2 in mg/Nm3	19 - 23	19	19	23	19	19	23
COS in mg/Nm3	330 - 534	381	330	432	483	389	534
Water in ppmv [4]	10- 40	40	40	40	40	40	40
Hg in µg/m3 [3]	0 - 4.3						

Note 1 – Design Composition Range considering operation range and reservoir souring at OPF Slug Catcher Gas Outlet

Note 2 – Design Composition at Slug Catcher Gas Outlet

Note 3 – For information. Maximum measured Hg value at OPF plant is 4.3 µg/m3. OPF Mercury guard bed is designed to capture up to 5 µg/m3.

Note 4 - Water in ppmv

B. Expected gas technical parameters for Phase 2B delivered from NCOC to QazagGaz (inlet).

Component	Expected	Expected Min[5]	Expected Max[5]
Nitrogen	1.08	0.98	1.26
Carbon Dioxide	4.94	4.84	5.09
Hydrogen sulfide	18.05	15.46	18.82
Methane	58.08	56.23	61.75
Ethane	9.01	8.31	9.47
Propane	5.41	4.32	5.84
Isobutane	0.75	0.56	0.86
n-Butane	1.40	1.03	1.54
Isopentane	0.36	0.26	0.45
n-Pentane	0.35	0.23	0.48
C6_1*	0.27	0.12	0.27
Benzene	0.006	0.003	0.006
C7_1*	0.128	0.032	0.128
Toluene	0.008	0.002	0.008
C8_1*	0.059	0.014	0.06
P-Xylene	0.005	0	0.005
E-Benzene	0.001	0	0.001
C9_1*	0.015	0	0.02
C10_1*	0.008	0	0.008
C11_1*	0.004	0	0.004
M-Mercaptan in mg/Nm3	414	339	448
E-Mercaptan in mg/Nm3	187	182	205
nP-Mercaptan in mg/Nm3	54	36	78
nB-Mercaptan in mg/Nm3	32	31	37
CS2 in mg/Nm3	20	9	23
COS in mg/Nm3	469	389	534
Water in ppmv [2]	40	40	2086 [4]
Hg in µg/m3 [3]	<5		4.3

Design compositions and ranges at Gas Pipeline inlet.

Note 2: Water in ppmv.

Note 3: For information, maximum measured Hg value at OPF plant is 4.3 µg/m3.

Note 4: Increased water level due to reduced Water dehydration performance. Upset condition for short period (period to be defined during FEED).

Note 5: The sum of the components in the Min and Max columns do not add up to 100%. The values in these columns provide the expected variations of the components during production, but are not to be contractual limits.

C. Minimum technical parameters of processed gas under Phase 2A and Phase 2B projects (output).

Technical parameters of the processed gas to be produced after the processing at the gas processing facilities shall conform to ST RK 1666-2007 “Flammable Natural Gases Supplied and Transported via Gas-Main Pipelines. Technical Specification” as may be amended or substituted by the relative authority and accepted in the Republic of Kazakhstan.