



VIRTUAL WORKSHOP



**Guidelines and Instructions
for the upcoming**

Market Test

for the

Allocation of Capacity

at the

National Natural Gas System

**Thursday,
April 6th, 2023**

11:00-12:30 (CEST +1)



Disclaimer

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Part 1. The necessity of the Expansion of the National Natural Gas System

Michalis Thomadakis
Strategy & Development Div. Director

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Commercial Services Div. Director



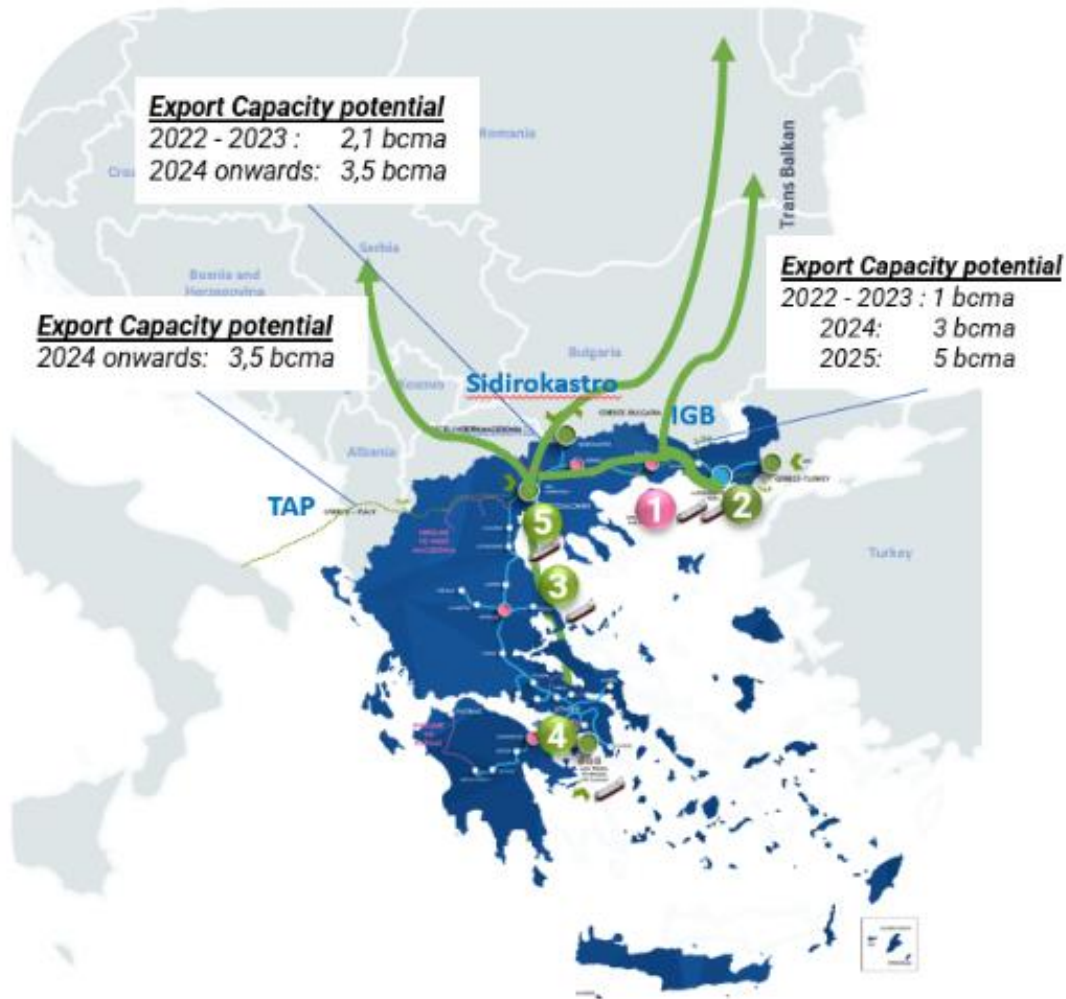
A quick overview of the Greek Gas Transmission System...

- ✓ Currently, the Greek gas transmission System has 3 pipe gas entry points in the North (Sidirokastro, Nea Messimvria and Kipi) and one LNG entry point (Aghia Triada) in the South of the country
- ✓ There is one exit point which can serve physical reverse flows towards a neighboring country and two exit points where backhaul products are offered
- ✓ Competing entry capacity is also offered between two entry points (Nea Messimvria and Kipi)
- ✓ Evzoni exit point towards North Macedonia will be operational from 2025
- ✓ Nea Messimvria firm exit capacity will be offered from end 2024 (completion of booster CS)
- ✓ With the already approved projects there is no firm exit capacity for the IGB exit point. Point-to-point capacity can be offered
- ✓ Alexandroupolis FSRU and Dioryga Gas FSRU (subject to FID) new entry points.



There are clear indications for transit flows' requirement

Five new FSRUs of ca. 20bcma applied for access to DESFA NGTS; only 1 under construction (Gastrade)



- ✓ DESFA is currently upgrading NGTS to reach export capacity of 12 bcma by 2025 (TYDP)
- ✓ Final capacity must be reserved by the market in a binding way before FID
- ✓ Major upgrades required for transit

New major projects included in the TYNDP 2023 - 2032

However, only a market assessment can define the final configuration of the upgrade

1. Duplication of Karperi - Komotini HP branch



CAPEX: 290 million €



Project benefits

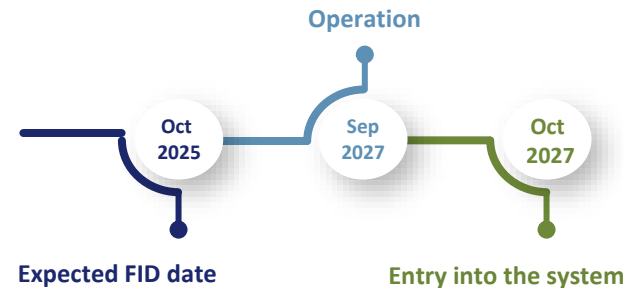
- Aims at the provision of firm capacity from the VTP to all Exit Points of the specific branch and from all NE Entry Points to all Exit Points of the branch

2. Duplication of the HP branch Patima - Livadeia



CAPEX: 140 million €

Subject to FID of Dioryga FSRU



- Combined with project 1, allows firm capacity from Dioryga Gas to IGB
- Should part of this capacity be used for export purposes, may lead to a decrease of the NNGS Average Tariff

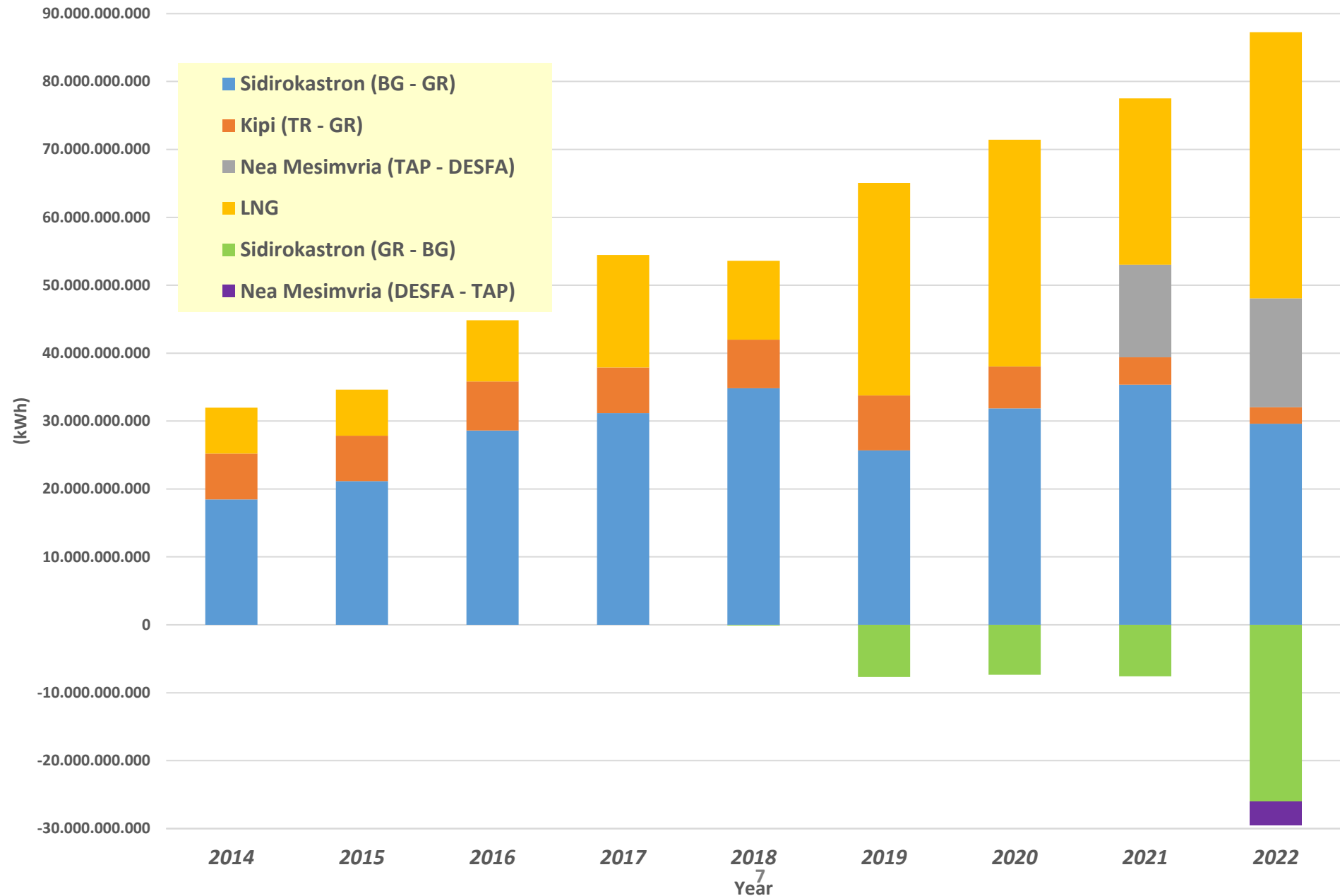
3. Duplication of Livadeia – Karperi HP branch and CSs



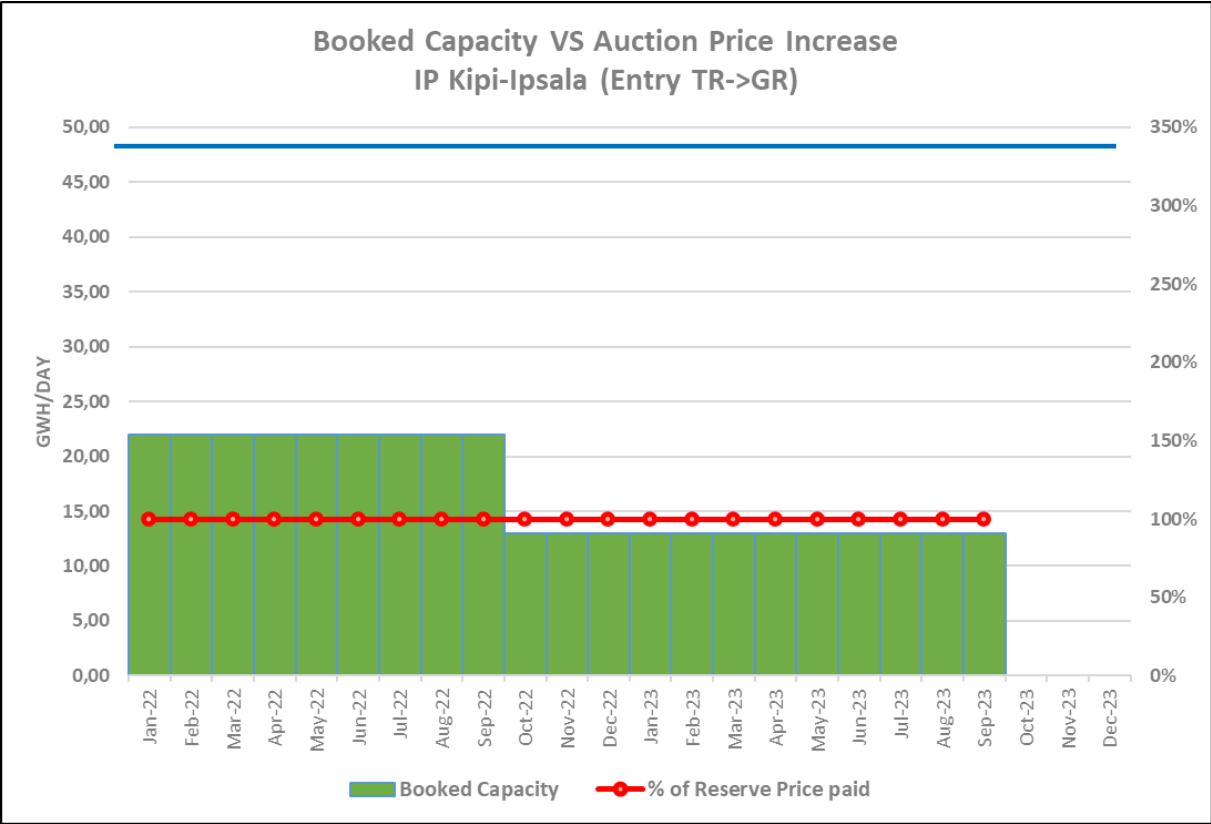
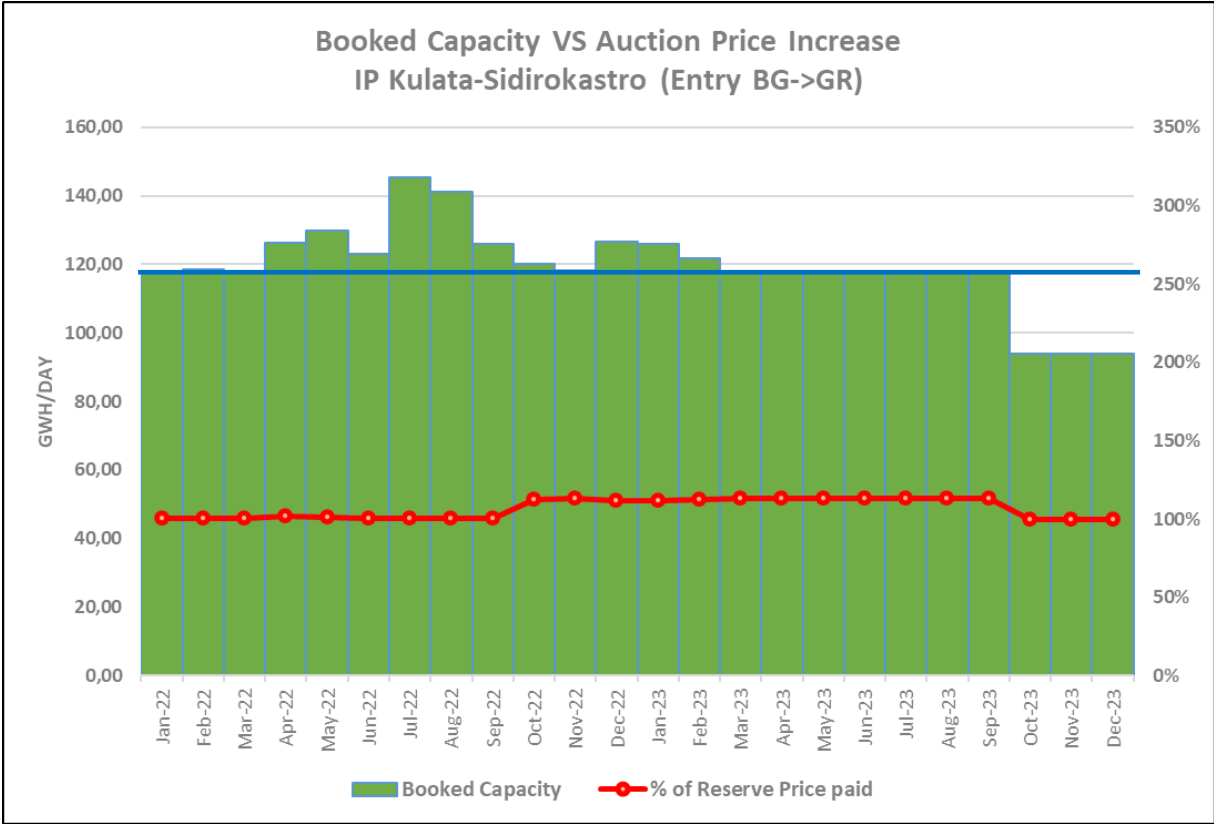
CAPEX: depending on the final configuration of the project, as this will be defined after a positive **market test**

- Eliminates the existing bottlenecking problems and gives unrestricted access to the scheduled FSRU projects

Greek Natural Gas System – Annual Throughput

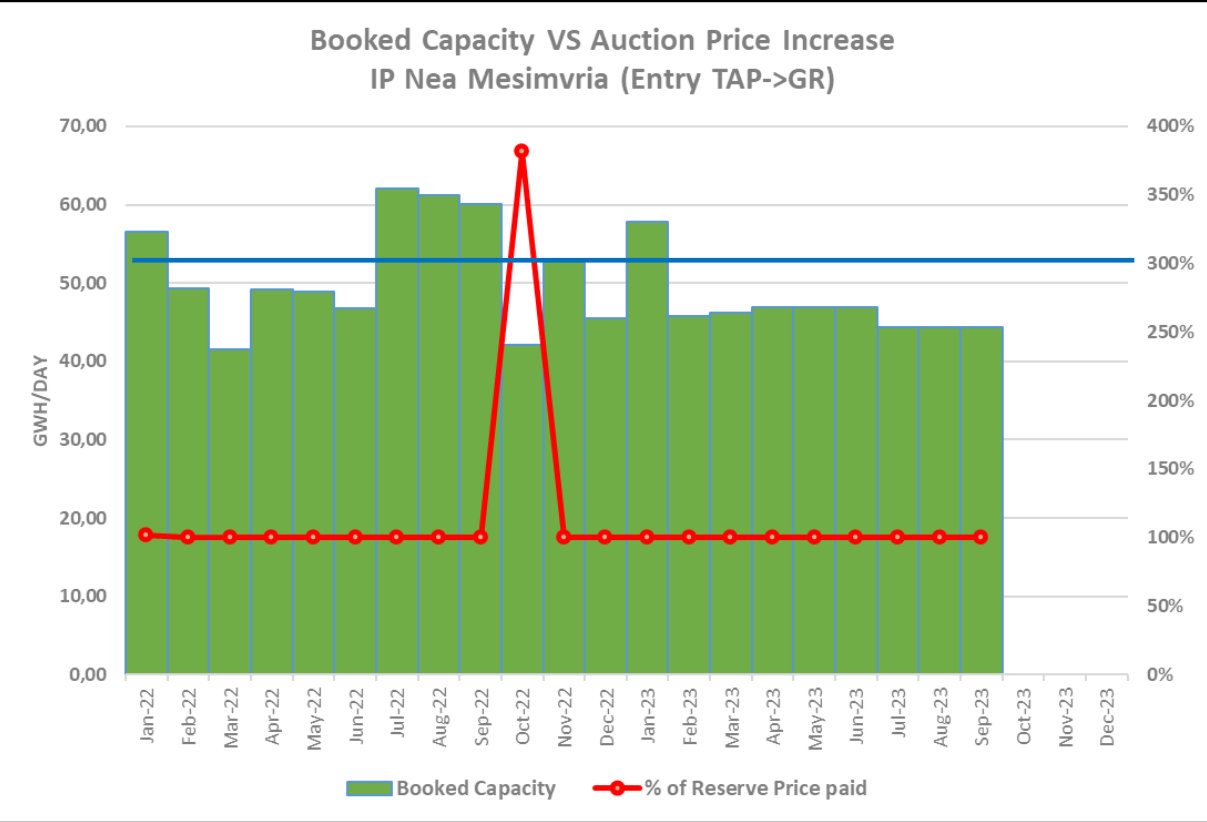


Greek Natural Gas System – Demand for Entry capacity in IPs



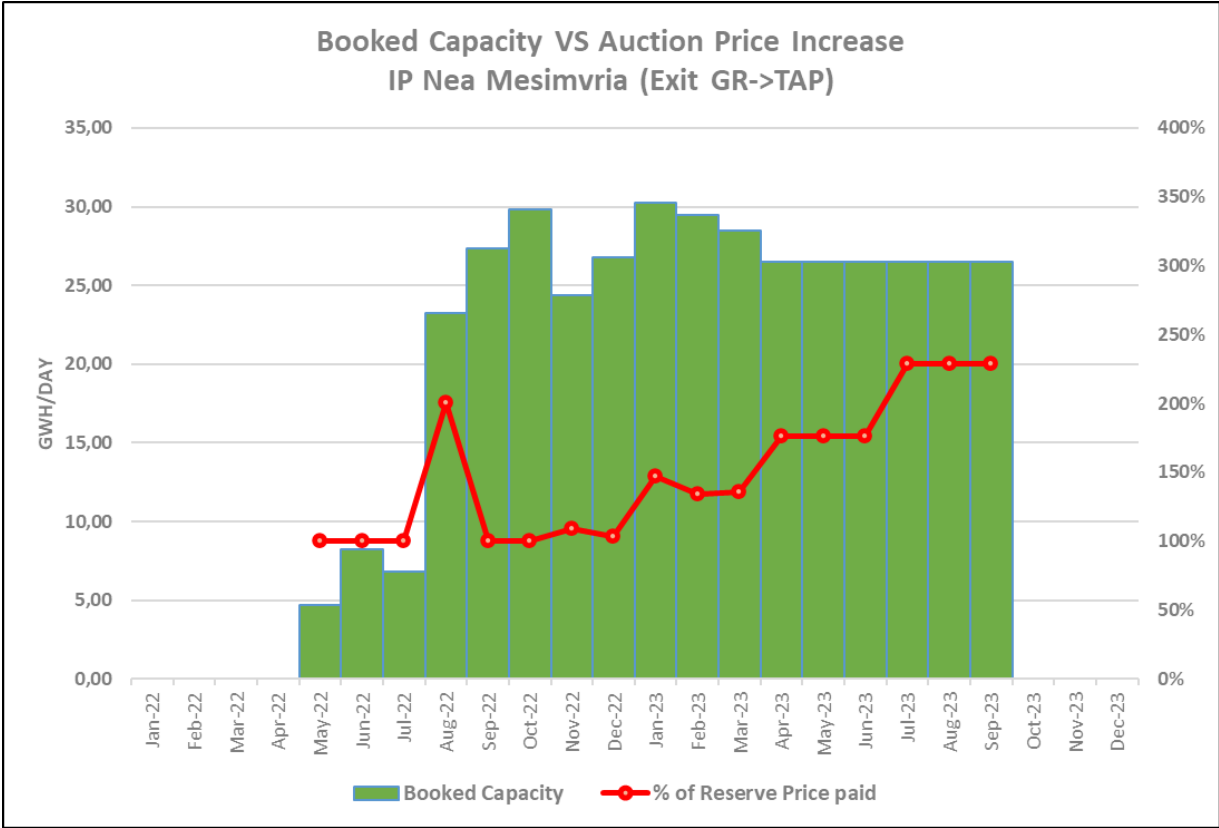
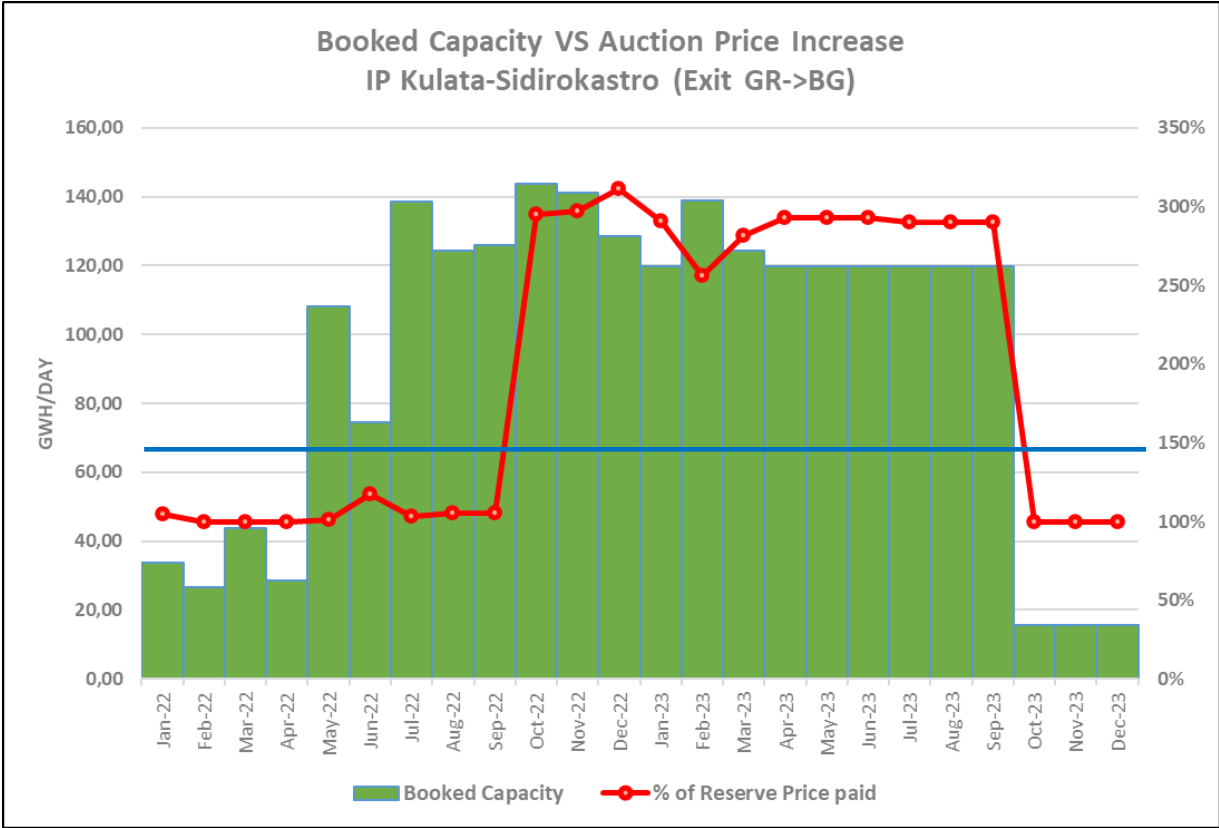
Relatively increased interest for capacity booking at Sidirokastron entry for the year 2022/2023 – closing price appr. 13% higher than the reserve price of the auctions

Greek Natural Gas System – Demand for Entry capacity in IPs



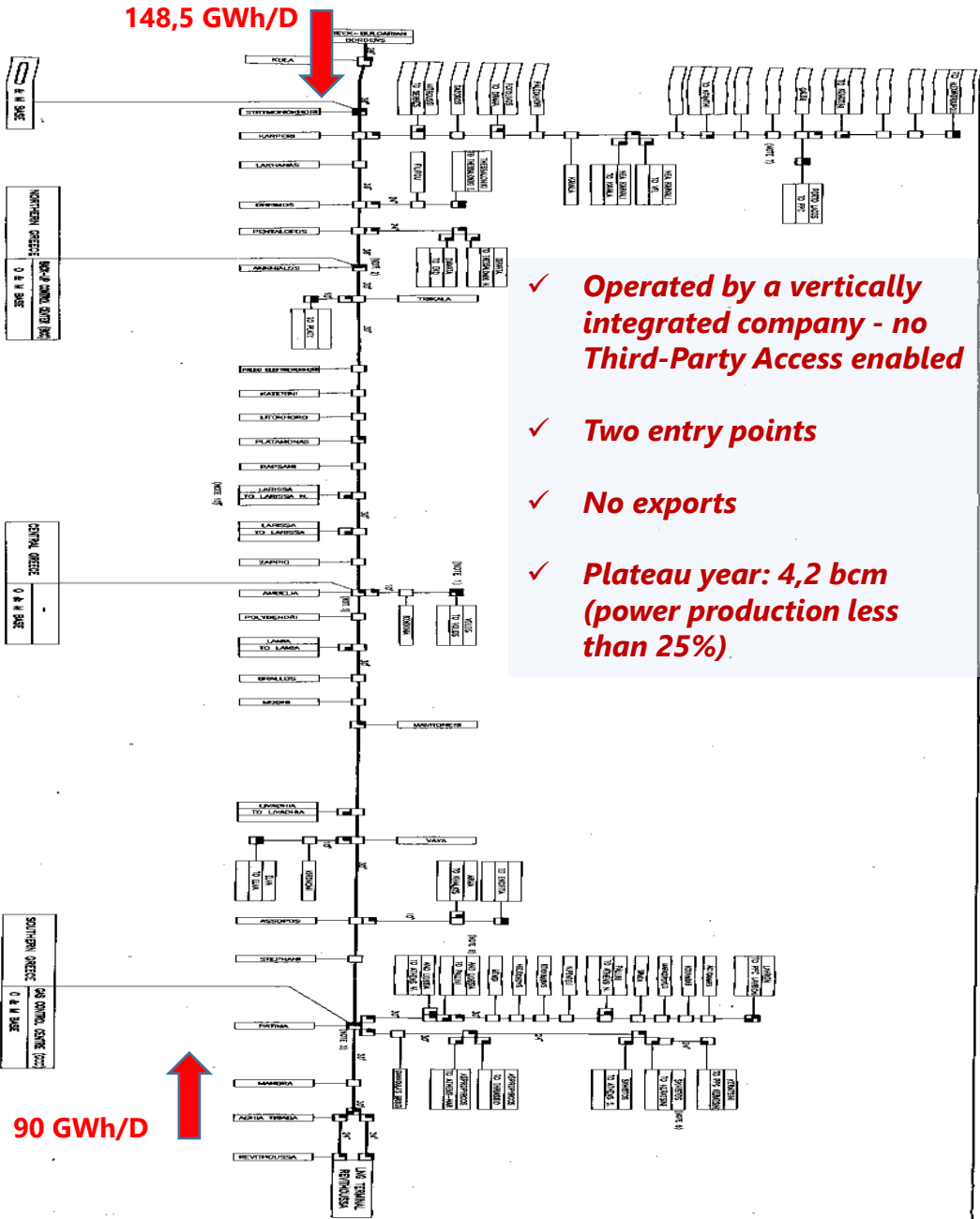
Entry capacity offered at Nea Mesimvria seems to be adequate to cover market’s needs, with only exemption a short period in October 2022 (25.10 – 28.10)

Greek Natural Gas System – Demand for Exit capacity in IPs



Demand for Exit capacity in IPs skyrocketed as of May 2022 and on, as a result of the Ukrainian crisis and the interruption of Russian gas supplies in Bulgaria

Greek Natural Gas System – Upgrade is urgently required

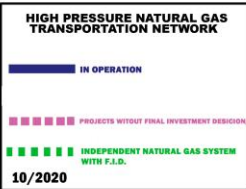


- ✓ Operated by a vertically integrated company - no Third-Party Access enabled
- ✓ Two entry points
- ✓ No exports
- ✓ Plateau year: 4,2 bcm (power production less than 25%)



- ✓ Third – Party Access
- ✓ Entry – Exit System
- ✓ Four Entry Points (1 bidirectional)
- ✓ New branches to Megalopolis, Aliveri, Trikala, west Macedonia etc.
- ✓ Exports
- ✓ Total throughput (2021): appr. 7 bcm

DESFA S.A.
Hellenic Gas Transmission System Operator



Part 2.

Call of Interest for non-binding requests: The process - next steps

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Strategy & Development Division*

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*Contracts & Customer Operations
Dept. Manager
Commercial Services Division*

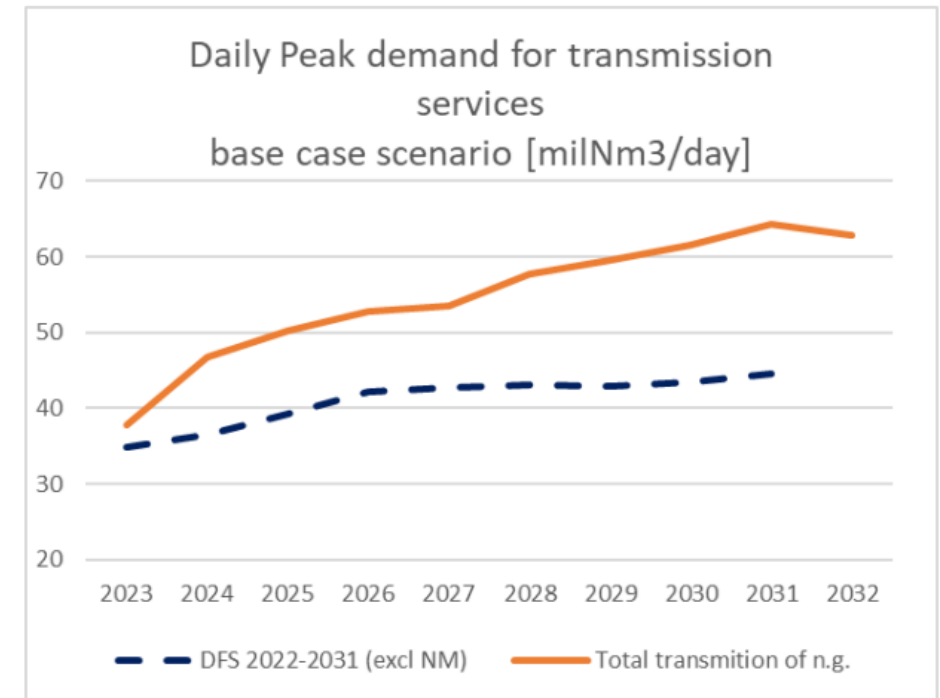


Background

- ✓ During the previous years, DESFA has received an **increasing number of requests** for new connection projects or for incremental capacity
- ✓ Until now, DESFA examines these requests in accordance either with the **provisions of the gas Network Code (Ch.12) or the CAM NC (incremental capacity process)**
- ✓ However, the assessment of these requests has highlighted the **need for a broader process** that would give DESFA the ability to propose new technical projects that would be able to satisfy, simultaneously, the connection requirements of more than one interested parties
- ✓ With the adoption of a Market Test process, it will be possible for interested parties to share the cost of the relevant connection projects
- ✓ In addition, it will be possible to evaluate and **take into account qualitative advantages** from the implementation of specific projects, thus reducing the minimum required cost coverage by the direct interested parties

Why a Market Test process is necessary?

- ✓ From the NNGS Development Study (uploaded in DESFA's website), shows that in the next years the gas consumption in the country (including also the quantities exported to neighboring markets) **is expected to increase significantly**
- ✓ **This increase (as peak-day demand) cannot be served on firm basis** by the existing technical capacities of the System
- ✓ DESFA has received **connection requests that can cover the supply deficit**, not only of the Greek market but of the whole SEE region
- ✓ **These requests cannot be fully satisfied**, and it is necessary either to adopt regulatory interventions (i.e. offer of conditional products) or to proceed with the development of new infrastructures on the System
- ✓ In addition, the "case-by-case" assessment of these connection requests often **leads to prohibitive connection costs per request** and therefore limits the possibility of implementing the necessary projects



What are the benefits of a Market Test process?

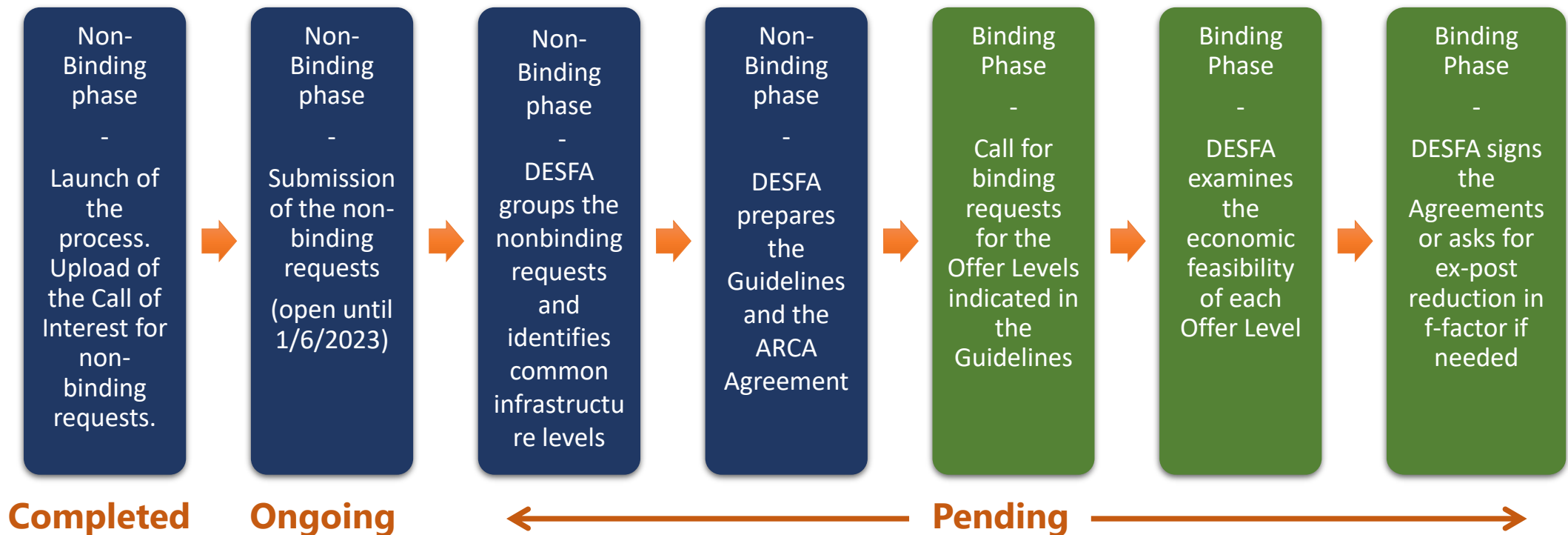
There are two main benefits of a Market Test process:

- ✓ First, **DESFA will be able to merge different connection projects** into larger expansion levels (capacity Offer Levels)
- ✓ That means that the **interested parties will not be obliged to cover the full cost** of an expansion project (dedicated only to them) but only part of the cost of a, perhaps, slightly different/larger expansion level that is also necessary for other projects
- ✓ In this case **the cost of the new project is shared between** the interested parties
- ✓ The second main advantage of a Market Test process is that DESFA will be able to propose reduction factors (the so-called f-factors) for the proposed expansion projects
- ✓ That means that **DESFA will propose an f-factor** (values of the f-factor range between 0 and 1) per each one of the capacity Offer Levels, which describes quantitative (i.e. short term capacity bookings) or qualitative advantages (i.e. SoS, diversification of supply sources) related with the implementation of the relevant project
- ✓ The rest of the cost (corresponding to 1-f value) **will be socialized, if approved by the Regulator**

What will be the structure of the process?

The process will be structured in two different phases:

- I. **The first phase will be a non-binding phase.** Interested parties will be able to submit their non-binding requests for new/incremental firm capacity in existing or new entry/exit points of the System
- II. **During the second binding phase** the participants will be requested to express their interest but for specific Offer Levels



On March 29, DESFA published in his website, a Call of Interest for non-binding requests, launching the non-binding phase of the process...

- ✓ DESFA, intends to collect, the non-binding interest in capacity booking, from all interested parties, to design the necessary technical upgrade projects of the NNGS
- ✓ After the Non-Binding Requests Deadline, **DESFA will assess the Requests and will specify the Offer Levels** and the relevant necessary technical projects
- ✓ Interested parties that have already participated in other market tests **are encouraged to reconfirm their interest for firm capacity through this process**
- ✓ **DESFA will make publicly available a System Adequacy Study** which will describe the limitations of the NNGS, as well as the Methodology for Economic Evaluation of the Offer Levels



On March 29, DESFA published in his website, a Call of Interest for non-binding requests, launching the non-binding phase of the process...

- ✓ The **participation in the Call of Interest will not constitute a binding commitment** by the interested party to book capacity in the NNGS
- ✓ Participation in the Call of Interest **will not be a condition precedent** for the participation in the binding phase of the Market Test
- ✓ **Participation in the binding phase of the Market Test will be possible only in accordance with the terms and conditions (guidelines)** approved by the Authority
- ✓ The **Offer Levels of the binding phase will be designed by DESFA based on the Non-Binding Requests**, so all interested parties are encouraged to submit their requests in this Call of Interest



What do we need to keep in mind?

- ✓ The Market Test **will include the whole National Natural Gas System**, including also the LNG facility
- ✓ This new process **will run in parallel with all other already established similar processes** (i.e. the incremental capacity process of CAM NC, or the process for the connection of new projects according to Ch.12 of the Network Code) and will not affect negatively the users that have already signed ARCA Agreements or Connection Agreements with DESFA
- ✓ In addition, pending requests for new connection projects will be also assessed according to the regulatory framework described in the Network Code
- ✓ In the first, non-binding phase, **anyone can participate without any prerequisite** (existing users of NNGS, other TSOs, other entities etc.)
- ✓ In the first, non-binding phase, there is **neither a participation fee nor a submission bid guarantee** provision
- ✓ Interested parties are asked to indicate their non-binding requests for capacity at existing or new points of the System or at any combination of them
- ✓ Multiple submissions per interested party will be allowed. Linked bids will be also allowed

Call of Interest for non-binding requests

- ✓ On March 29th, 2023 DESFA published on his website a Notice, governing the process and rules for participation in this Call of Interest for Non-Binding Requests

<https://www.desfa.gr/en/regulated-services/transmission/market-test/expansion-greek-system>

- ✓ Participation in the Non-Binding Request neither binds the participant to submit a binding request at a later stage, nor does it bind DESFA to proceed to any investment or allocate any capacity to the NNGS
- ✓ Participation in the Call of Interest will not be a condition precedent for the participation in the binding phase of the Market Test. However, Offer Levels shall be defined according to Non-Binding Requests




Non-Binding Request Form

- ✓ To participate in this Call of Interest it is simply required to submit the Non-Binding Request Form
- ✓ Participants may submit their Non-Binding Requests not later than **June 1st, 2023**
- ✓ Non-Binding Requests shall be submitted **only digitally by email** at

market-test@desfa.gr

Subject: "Call of Interest for the expansion of the NNGS - Non-Binding Request by (Company Name)"

- ✓ The email shall contain **one single attachment**, the filled Non-Binding Request Form (Attachment I of the Notice), duly signed by an authorized person of the interested party



Notice
Call of interest for the submission of non-binding requests for future capacity at the National Natural Gas System owned by DESFA

Attachment I: Non-Binding Request Form

To: DESFA S.A.
357-359 Messogion ~~av.~~
15 231 Halandri
Commercial Services Division

Send by e-mail at market-test@desfa.gr

SUBJECT: Non-Binding Request Form

The undersigned in his/her capacity as acting in the name and on behalf of (the "Company"), with registered office in, VAT number, with business registration no in

PRESENTS

- a Non-Binding Request for the allocation of future firm capacity at an existing or at a new point of the NNGS, as per the filled in table of the present Non-Binding Request Form, in accordance with the Notice, duly filled and signed.


In the name and on behalf of this Company,
DECLARES

- to assume full and sole responsibility concerning the correctness and completeness of the information and data provided,
- to undertake to notify promptly any possible changes of information and data provided.

ACCEPTS AND RECOGNIZES

- all the information present in this Non-Binding Request and in its annexes will be used by DESFA for the assessment of the request,

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Notice
Call of interest for the submission of non-binding requests for future capacity at the National Natural Gas System owned by DESFA

- DESFA may request further information, in case the request is incomplete,
- the submission of this Non-Binding Request neither binds the Company to submit a binding request at a later stage, nor does it bind DESFA to proceed to any investment or allocate any capacity to the NNGS,
- All written communication about this procedure must be sent to the address mentioned here above. Any notice or other communication to the Company shall be made the person(s) designated below:

Name of the authorized contact person:

Email: market-test@desfa.gr

Tel. number:

HEREBY SUBMITS

A Non-Binding Request for the allocation of future firm capacity at an existing or at a new point of the NNGS:

| ORDER NUMBER | ENTRY / EXIT POINT ¹ (Existing or new) | GAS YEAR(S) ² [YY ₁ /YY ₂ to YY _n /YY _m] | FIRM CAPACITY [kWh/Gas Day]/[Gas Year] | CONDITIONS ³ | NOTES ⁴ |
|--------------|--|---|---|-------------------------|--------------------|
| 1 | ... | ... to ... | ... | ... | ... |
| 2 | ... | ... to ... | ... | ... | ... |
| 3 | ... | ... to ... | ... | ... | ... |
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| | | | | | |
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1: Please indicate the name(s) of the point(s) (existing or new) and the type of firm capacity, entry or exit. In case of a new point please indicate the location and if possible other relevant information.
2: Please indicate the start and end period of booking by inserting the respective Gas Year
3: Elaboration of conditions (if any):
.....
.....
.....

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Non-Binding Request Form

Authorized representative
information



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Commercial Services Division

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acting in the name and on behalf of (the "Company"),
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PRESENTS

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In the name and on behalf of this Company,

DECLARES

- to assume full and sole responsibility concerning the correctness and completeness of the information and data provided,
- to undertake to notify promptly any possible changes of information and data provided.

ACCEPTS AND RECOGNIZES

- all the information present in this Non-Binding Request and in its annexes will be used by DESFA for the assessment of the request,



Notice
Call of Interest for the submission of non-binding requests for future
capacity at the National Natural Gas System owned by DESFA

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Name of the authorized contact person:

Email: market-test@desfa.gr

Tel. number:

HEREBY SUBMITS

A Non-Binding Request for the allocation of future firm capacity at an existing or at a new point of the NNGS:

| ORDER NUMBER | ENTRY / EXIT POINT ¹ (Existing or new) | GAS YEAR(S) ² [YY ₁ /YY ₂ to YY ₃ /YY _{n+1}] | FIRM CAPACITY [(kWh/Gas Day)/(Gas Year)] | CONDITIONS ³ | NOTES ⁴ |
|--------------|--|---|---|-------------------------|--------------------|
| 1 | ... | ... to ... | ... | ... | ... |
| 2 | ... | ... to ... | ... | ... | ... |
| 3 | ... | ... to ... | ... | ... | ... |
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2: Please indicate the start and end period of booking by inserting the respective Gas Year
3: Elaboration of conditions (if any):
.....
.....
.....

Contact person
information



Non-Binding Request Form

Requests must be expressed in kWh/Gas Day/Gas Year

There will be no restriction on the amount of capacity requested, nor a restriction on the change (increase or decrease) of the capacity from one Gas Year to the next one

| ORDER NUMBER | ENTRY / EXIT POINT ¹ (Existing or new) | GAS YEAR(S) ² [YY ₁ /YY ₂ to YY _n /YY _{n+1}] | FIRM CAPACITY [(kWh/Gas Day)/Gas Year] | CONDITIONS ³ | NOTES ⁴ |
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1: Indication the name(s) of the point(s) (existing or new) and the type of firm capacity, entry or exit.

In case of a new point indication of location and other relevant information

2: Indication of start and end Gas Year of booking.

Capacity booking must not exceed the Gas Year 2049-2050

3: Elaboration of conditions (if any)
e.g. the allocation of firm transmission capacity at one point is conditional on the allocation of firm transmission capacity at another existing or non-existing point of the NNGS - linked bids

4: Elaboration of notes (if any), including the upgrade the LNG Terminal (LNG Temporary Storage, Unloading, Truck Loading Capacity, etc.)

No price value will be included

Non-Binding Request Form

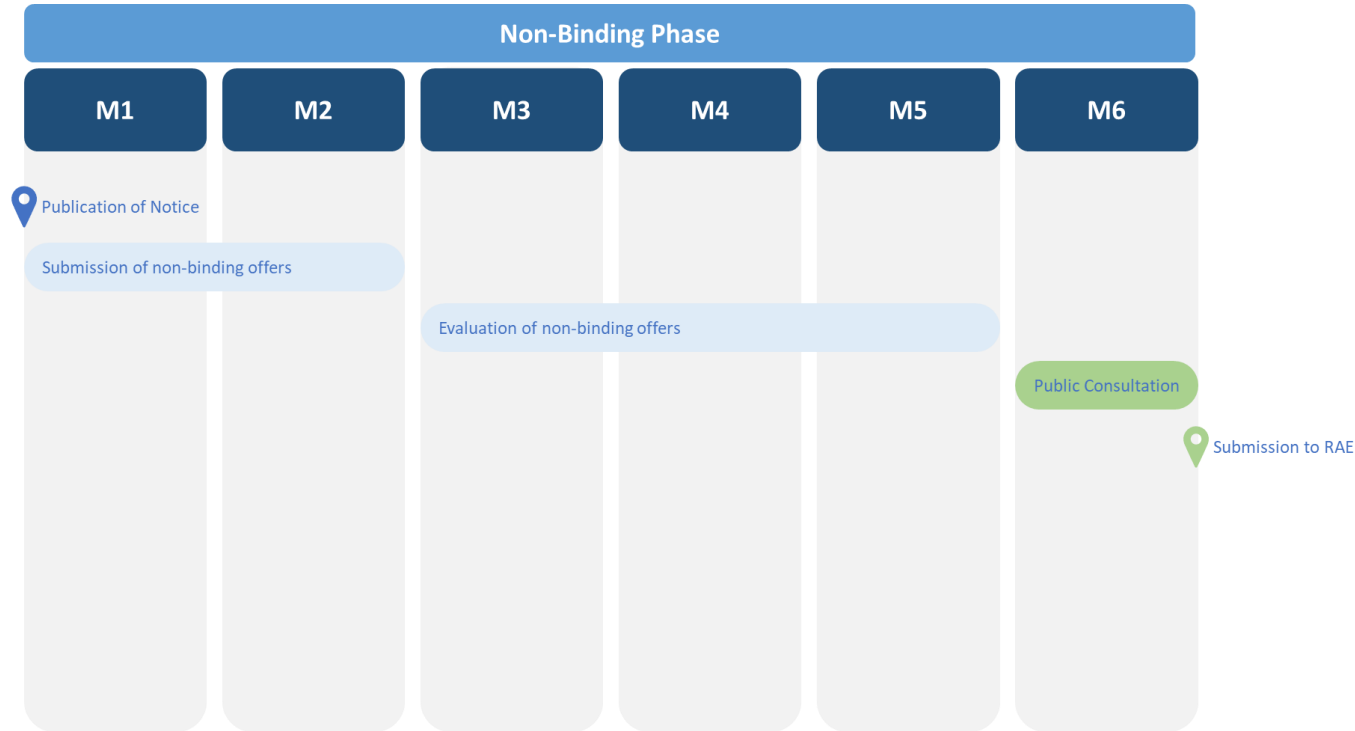
- ✓ Offer Levels will be designed by DESFA based on the Non-Binding Requests, so all interested parties are encouraged to submit their requests in this Call of Interest
- ✓ Participation in this Call of Interest will be **unrestricted** for all interested parties (i.e. NNGS Users, users in other connected transmission systems, TSOs, DSOs, other entities etc.)
- ✓ There is **no application fee** or any other cost related to this Call of Interest / no LoG required
- ✓ Feel free to ask for clarifications at

market-test@desfa.gr

Subject: "Call of Interest for the expansion of the NNGS - Non-Binding Request by (Company Name)"

| ORDER NUMBER | ENTRY / EXIT POINT ¹ (Existing or new) | GAS YEAR(s) ² [YY ₁ /YY ₂ to YY _n /YY _{n+1}] | FIRM CAPACITY [(kWh/Gas Day)/Gas Year] | CONDITIONS ³ | NOTES ⁴ |
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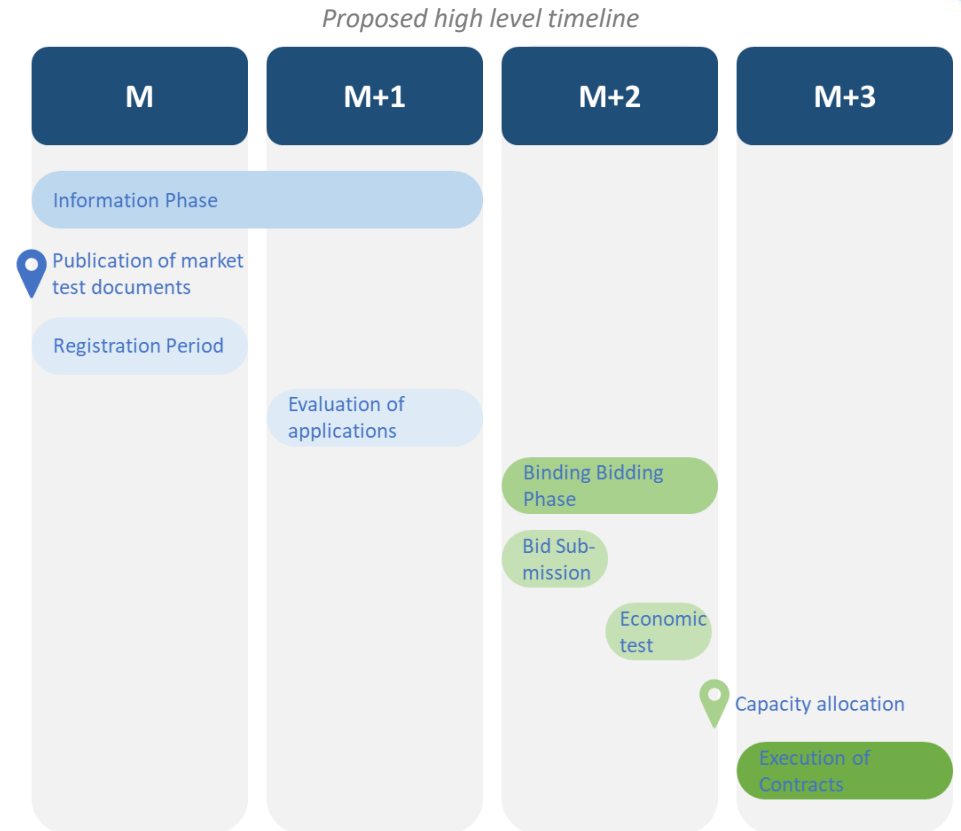
Time-schedule of the Non-Binding Phase



- ✓ Call of Interest launched on 29.03.2023
- ✓ Non-Binding Requests receipt by 01.06.2023 eod
- ✓ Technical evaluation within 3m (result: capacity Offer Levels, and technical projects with full cost and implementation schedule estimation)
- ✓ Public consultation for 1m (participation: regardless of having submitted Non-Binding Requests)
- ✓ After the end of the consultation, DESFA will finalize and submit its proposal for the initiation of a Market Test to the Authority

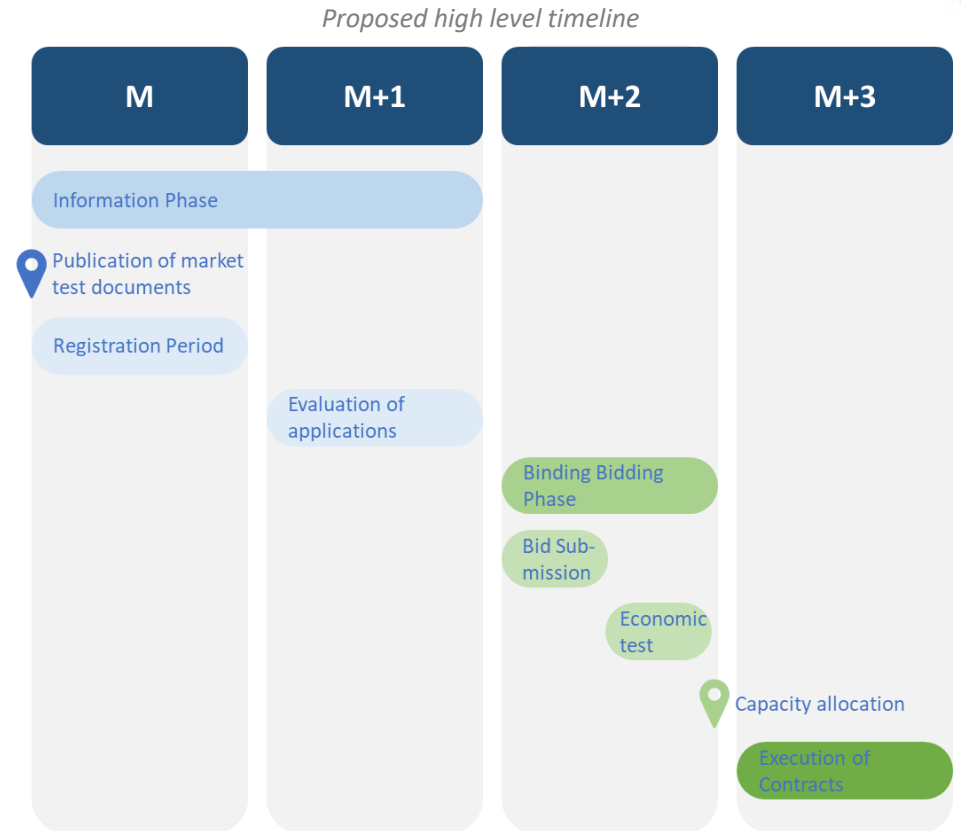
Next steps

- ✓ Subject to RAE's approval, DESFA shall initiate the Binding Phase of the Market Test (est. by the end of 2023)
- ✓ The expected duration of the Binding Phase is 4 months
- ✓ DESFA shall make known the complete and detailed schedule of the Binding Phase, along with the list of the necessary conditions that the interested parties will have to fulfill for their participation
- ✓ The Binding Phase will commence with the publication of the relevant Notice on the website of DESFA
- ✓ The Binding Phase is made up of an Information Phase and a Binding Bidding Phase



Next steps

- ✓ During the Information Phase, the parties interested in participating in the Binding Bidding Phase will be requested to register as an Applicant
- ✓ At the beginning of the Information Phase, DESFA will make available a Binding Phase Notice and a list of the relevant documentation that needs to be submitted by the Applicants for their registration and the respective deadline for submission of such documentation
- ✓ Following the evaluation of Applicants' documents, successful applicants interested in participating in the Binding Bidding Phase will be required to submit Binding Bids by no later than the end of the Bid Submission Window
- ✓ Following the end of the Bid Submission Window, DESFA will proceed with the evaluation of the bids, the Economic Viability Test (EVT), and the conclusion of Agreements with the successful Participants. The Binding Phase ends either in case no Offer Level passes the EVT or with Agreements, becoming fully effective





Thank you for your attention!



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