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**“Results and conclusions from
the European Hydrogen Bank
pilot auction”**

June 2024

EU Hydrogen Bank Pillars



European Hydrogen Bank

- **September 2022:** Announced by European Commission (EC)
- **March 2023:** Draft T&Cs for the pilot auction made available
- **November 2023:** The auction launched
- **February 2024:** The auction closed
- **April 2024:** EC released the results

Pillar 1



Domestic Pillar

Pillar 2



International Pillar

Pillar 3



Transparency

Pillar 4



Investment & Technical Assistance

Overview of IF23 EU Hydrogen Bank T&Cs

Funding source

- **European Union Emission Trading System (EU ETS)**

Funding Type

- **Fixed premium** per kg H₂ produced for **up to 10 years of operation** for domestic renewable hydrogen (**max 4,5 €/kg**)

Project Types

- Projects targeted to the **production of RFNBO hydrogen** within EU (renewable fuels of non-biological origin)

Award Criteria

- **Admissibility & Eligibility** (all projects)
- **Relevance and quality** (only the projects that their budget fits within the call's budget)

How it will work

- First pilot auction **opened 23/11/23 and closed at 08/02/24**
- Budget - **€800 million**
- Lowest bids are cleared under the auction budget until it is exhausted
- Basis for ranking the bids is the fixed premium requested expressed as X,XX €/kg
- Grant amount calculated as:
 - $(\text{Bid price}) \times (\text{expected average yearly production volume}) \times (10 \text{ years})$
- Max grant amount is **266,7 million €** (1/3 of the call's budget)
- Payments will materialize every **6 months** after Entry into Operation
- The last bid that exceeds the total budget **available will be added to the reserve list.**
- There are tiebreaker rules
- **No cumulation with State Aid & EU funding**

Main qualification requirements

- **Min 5 MWe of newly installed electrolyser capacity** (which must be in a single location; virtual pooling of capacity is not permitted)
- **Completion guarantee** covering 4% of the maximum grant amount
- **Letter of Intent (LoI) from at least one OEM** and information about the origin of the electrolyser (not obliged to proceed with a European OEM)
- **Offtake agreement for at least 60%** of the produced quantities of H₂ & **LoI for at least 60% of the supplied electricity**

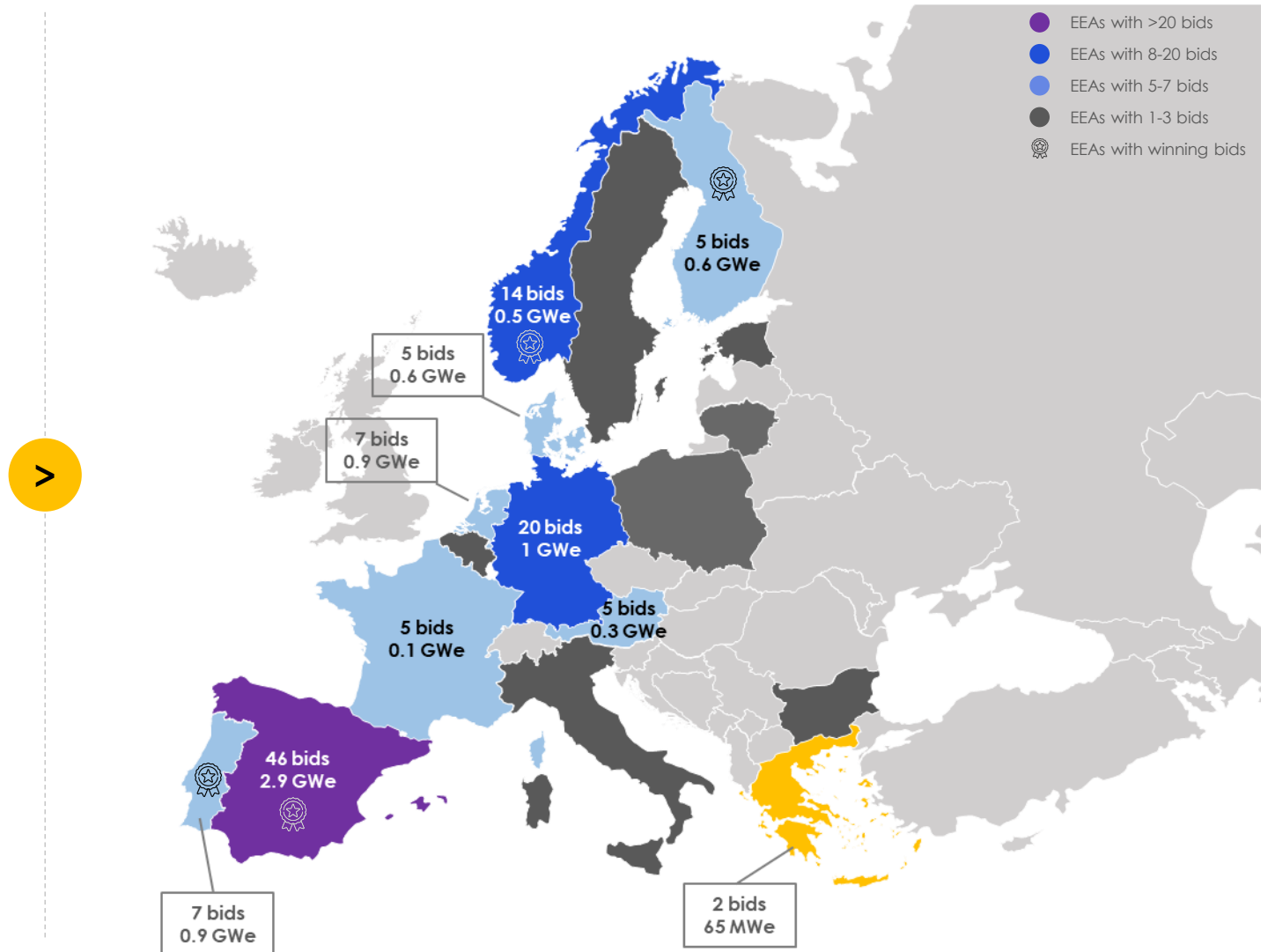
Main developers' obligations post-signing the Grant Agreement

- Provide certification that the total volume of hydrogen produced by the supported capacity achieves at least 70% GHG savings (otherwise reduction of the Grant)
- Max time to Entry into Operation is **5 years**
- Over a rolling 3-year period, the verified and certified RFNBO hydrogen production cannot fall on average **below 30%** of the expected yearly average volume (otherwise termination)
- Semi-annual production can be increased up to **140% compared to half of the expected average yearly volume of RFNBO hydrogen production** as stated in the bid. Semi-annual production **beyond 140% is possible but not supported by grant payments.**
- Regular reporting

Results of the IF23 H₂Bank auction at a glance

Key Highlights

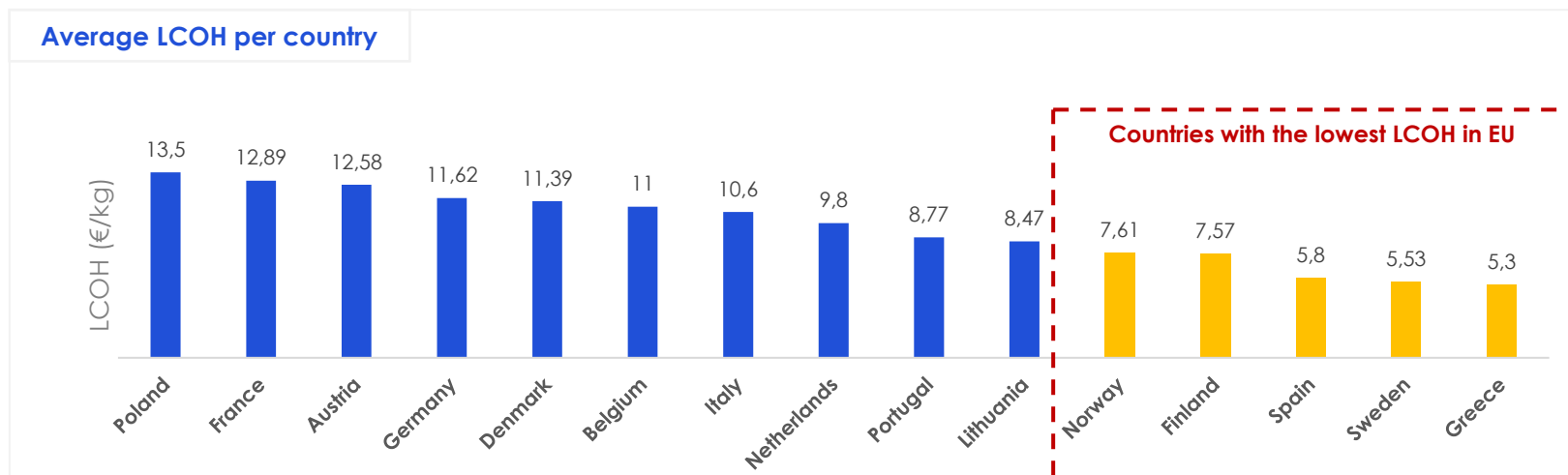
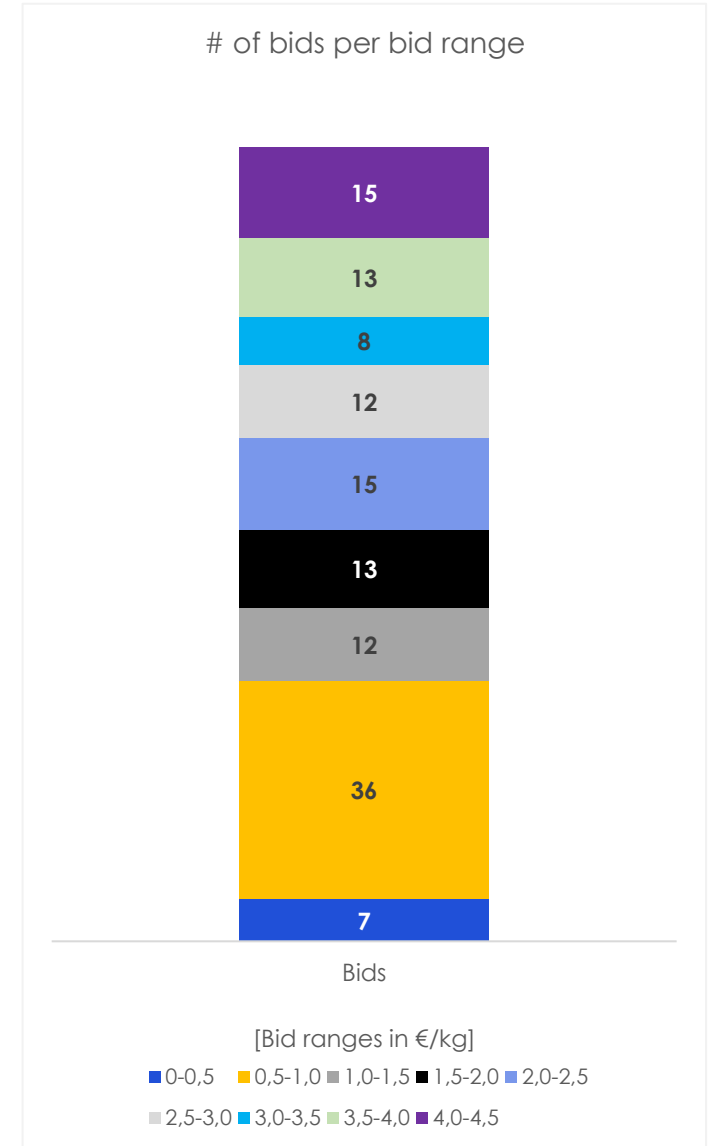
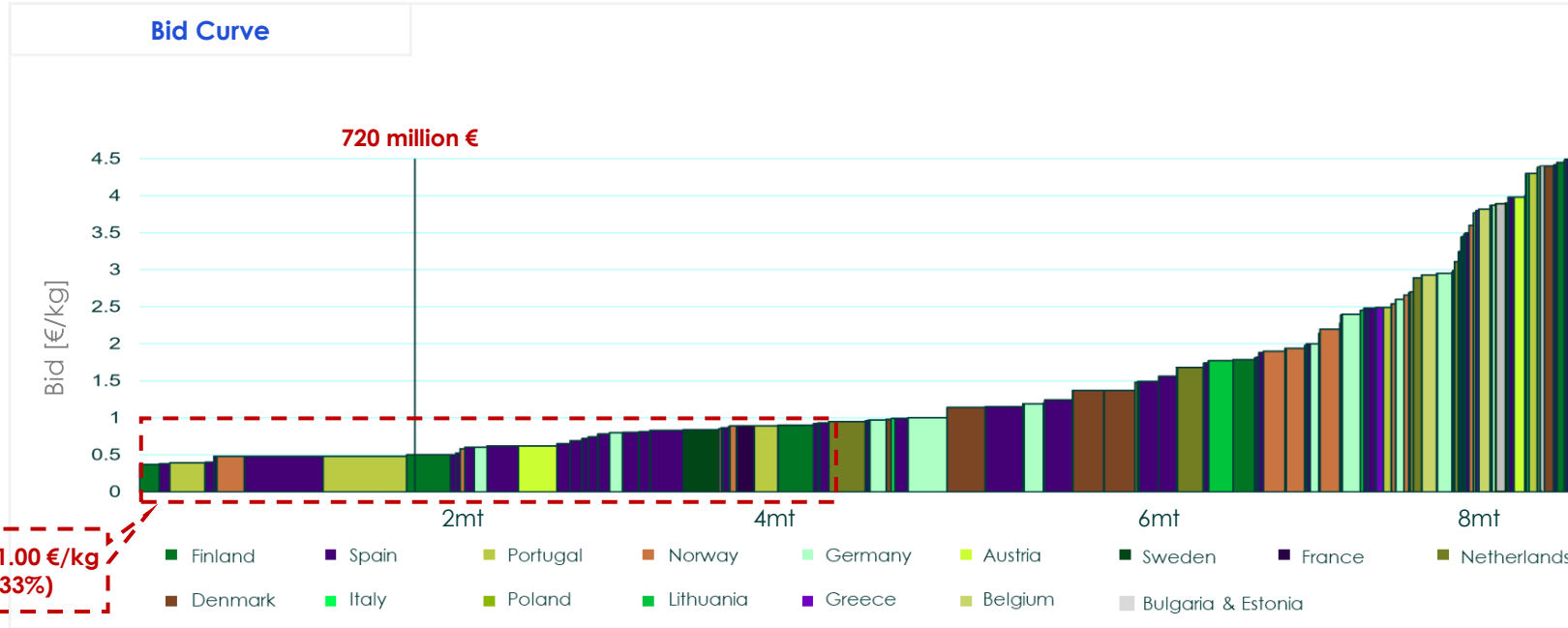
- **132 bids submitted**, coming from **17 different EEA Countries with only 7 bids being successful** (5,3%), consuming a budget of **720 million €** (90% of available call's budget)
- Only **13 projects** failed admissibility and eligibility criteria
- **1,5 GW total electrolysis capacity** from the selected projects
- The winning projects are expected to produce **1,58 Mt of RFNBO hydrogen over ten years**
- Clearing price **at 0,48 €/kg of H₂** and lowest price **0,37 €/kg of H₂**
- **Spain** (46 bids), **Germany** (20 bids) and **Norway** (14 bids) represent **60%** of total bids
- Only **3 bids** came from South-Eastern Europe (2 from Greece & 1 from Bulgaria)
- **5/7 successful bids from Iberia** (3 Spain & 2 Portugal) and **2/7 successful bids from the Nordics** (1 Norway & 1 Finland)



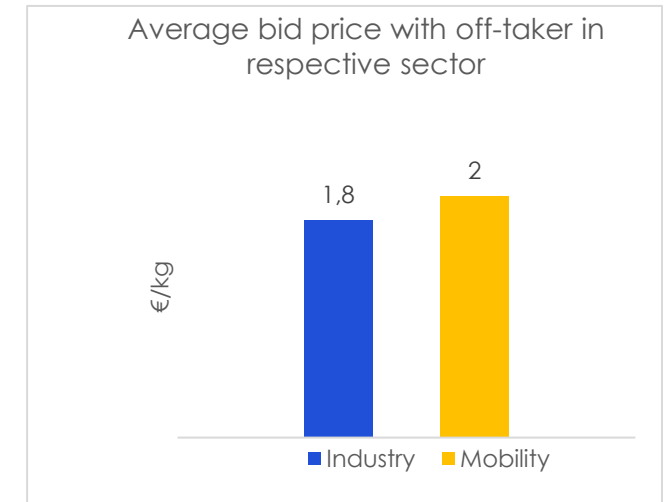
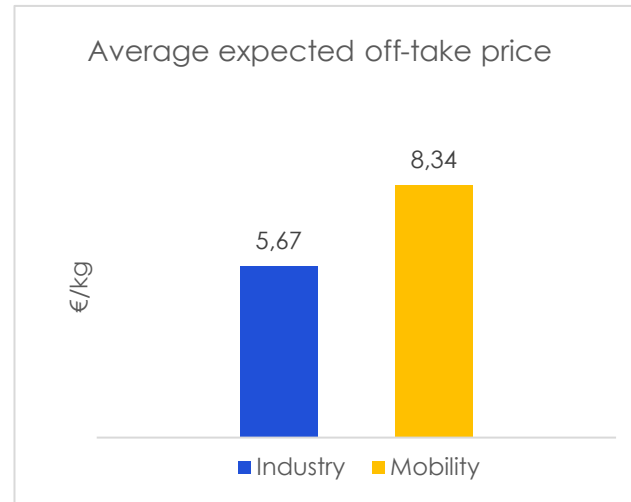
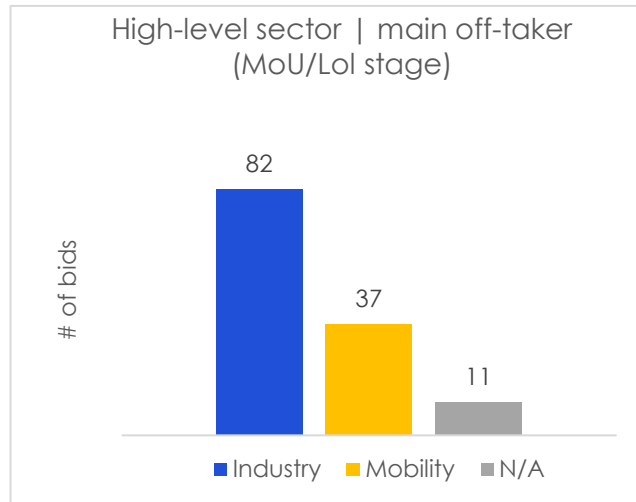
Overview of the successful bids

Project Acronym	Project Coordinator	Project location	Final H ₂ use	Project Budget (EUR)	Bid price (EUR/kg)	Bid volume (kt H ₂ /10yr)	Bid capacity (MW _{el})	Total requested funding (EUR)	Electricity Sourcing	
<u>eNRG Lahti</u>	Nordic Ren-Gas	Finland 	e-Methane & District Heating	250 million €	0,37	122	90	45 million €	Direct Line (Wind)	
<u>El Alamillo H2</u>	Benbros Energy S.L.	Spain 	Unspecified	Unknown	0,38	65	60	25 million €	Unknown	
<u>Grey2Green-II</u>	Petrogal S.A.	Portugal 	HVO & SAF	250 million €	0,39	216	200	84 million €	PPAs	
<u>HYSENCIA</u>	Angus	Spain 	Unknown	Unknown	0,48	17	35	8 million €	Direct Line (PV)	
<u>SKIGA</u>	Skiga	Norway 	Green Ammonia	339 million €	0,48	169	117	81 million €	PPAs (Offshore Wind & Hydro)	
<u>Catalina</u>	Renato Ptx Holdco	Spain 	Green Ammonia & NG injection	2.35 billion €	0,48	480	500	230 million €	Direct Line (Wind & PV)	
<u>MP2X</u>	Madoquapower 2x	Portugal 	Green Ammonia	2.8 billion €	0,48	511	500	245 million €	Direct Line (Wind & PV)	
					0,44 (bids' avg)	1580 (10-yr total)	1500 (10-yr total)	720 million € (10-yr total)		

IF23 auction's bids & LCOH spread



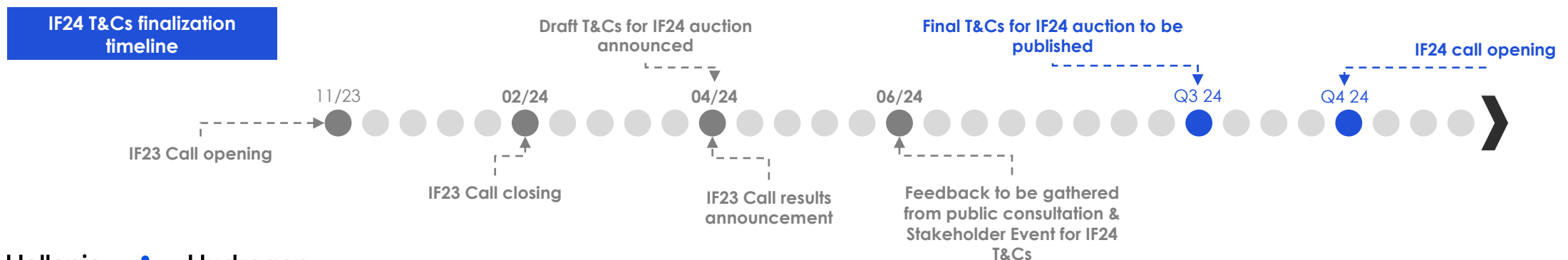
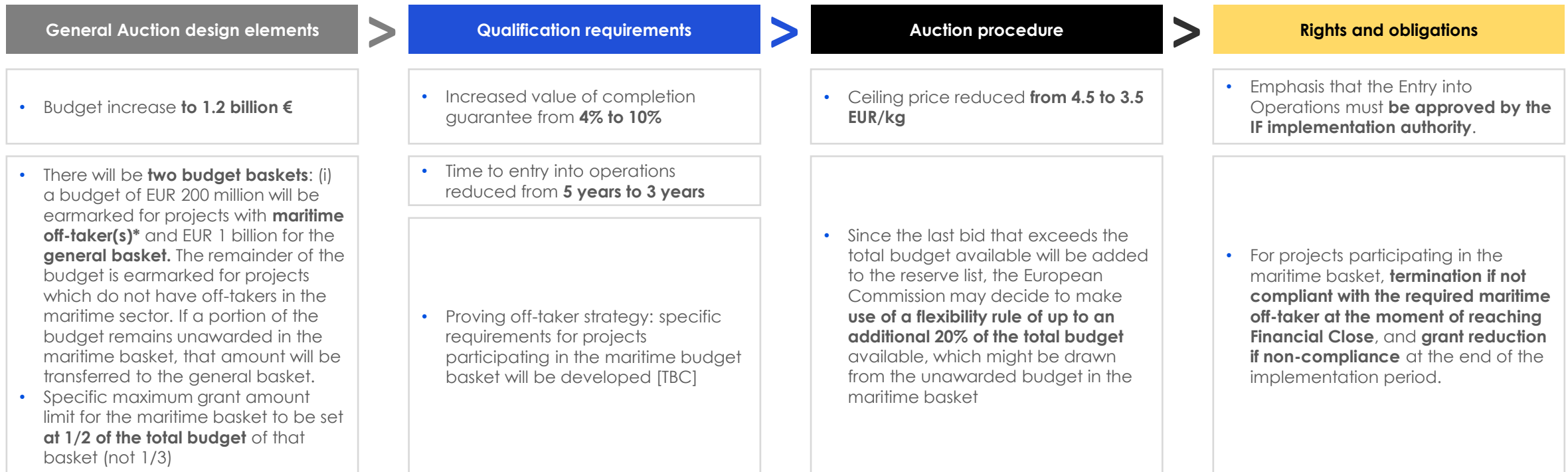
IF23 auction's off-taking figures breakdown



- Top-10 off-take sub-sectors within "Industry"**
- Methanol
 - Chemicals
 - Fertilizer
 - Ammonia
 - Refining
 - Glass
 - Injection into gas/H2 pipeline
 - Electricity or heat generation
 - Steel
 - Industrial gases

- Top-10 off-take subsectors within "Mobility"**
- Hydrogen refueling station
 - Logistics incl. food logistics
 - Maritime
 - Methanol
 - Heavy duty trucking
 - Hydrogen as fuel
 - Bus transport
 - Aviation
 - Ground transport (unspecified)
 - Methane

Main suggested T&Cs changes from IF23 auction & key next steps for their finalization



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*Thank you for your
attention!*