



Gas Storage Bergermeer (GSB) Expert Sessions

21 May 2014



Agenda

- › Introduction ICE Endex
- › Primary capacity auction
- › GSB Secondary market
- › Qualification process



ICE Endex

ICE Endex – A shareholders perspective



- Positioning and developing TTF into the European Henry Hub
- Clear ambition to deliver a full-curve offering from balancing markets to derivatives across Continental Europe
- Extending presence and commitment to the Continental Gas & Power markets

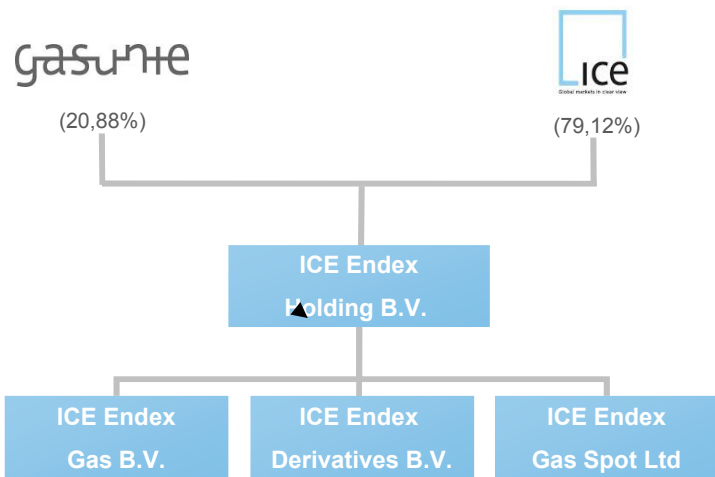
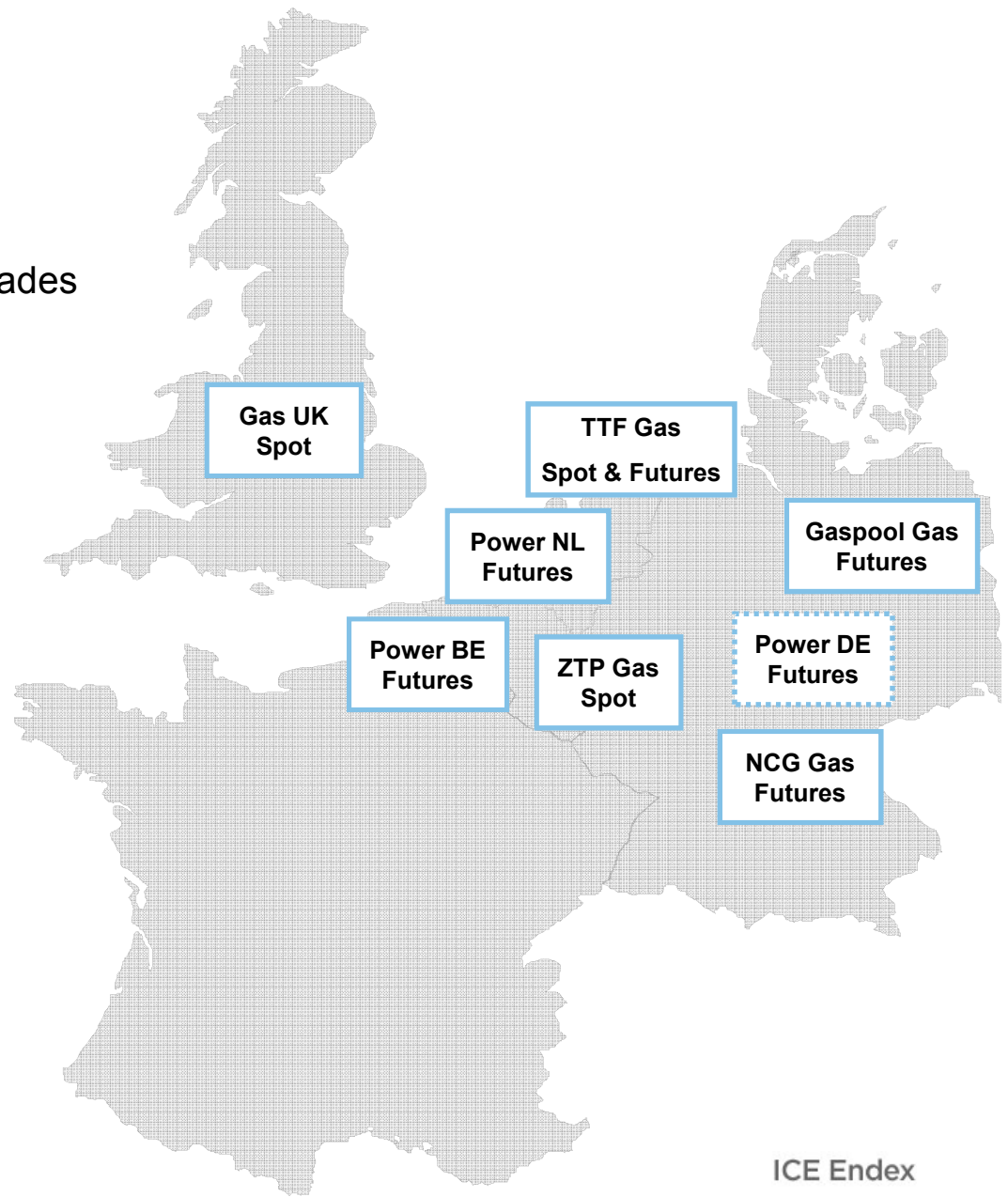


- Continue to facilitate the development of TTF as the leading Continental European gas benchmark in conjunction with ICE
- Strategic alignment with the ambition of the Netherlands to position itself as the gas roundabout of Europe
- Expanding the usage of its gas infrastructure network through development of full-curve products both in the commodity as well as infrastructure

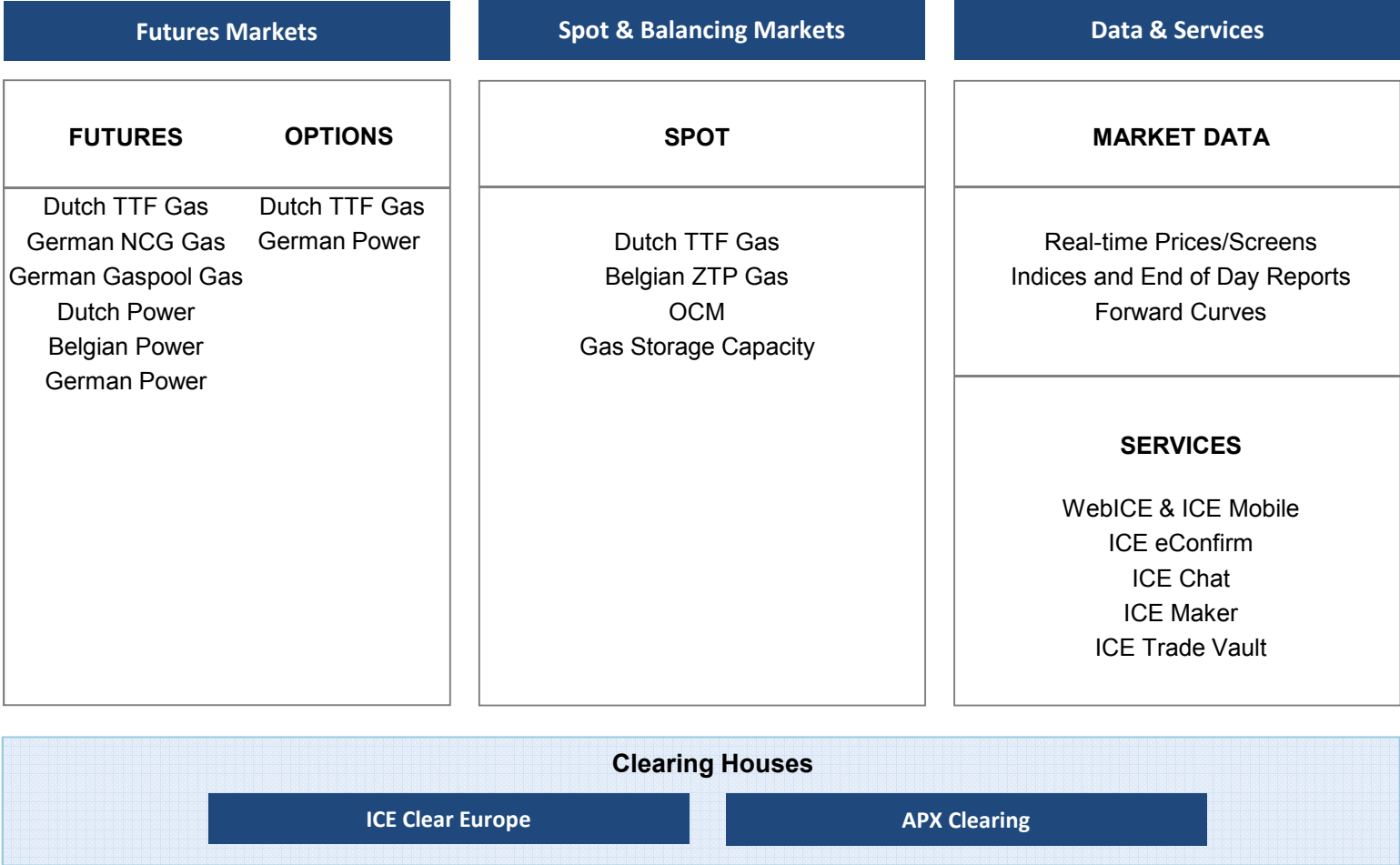
ICE Index – Overview

- > Gas, power and storage exchange
- > Clearing services for exchange & OTC trades
- > Gas storage auctions & operations
- > Price indices & market data

- > Total contract value traded across ICE Index markets in 2013:
 - > **EUR 23 Billion**



Markets



Why trade on ICE Endex?

- › Price competitiveness and distribution
- › Leading industry technology
- › In-depth market knowledge and deep relationships
- › ICE Clear Europe that optimizes capital efficiency (Cross-margining)
- › On-exchange: “fair and orderly” with transparent & competitive prices





2014 TAQA Primary Capacity Auction

The Auction - Overview

- › On 17 September 2014 ICE Endex will manage an auction for primary gas storage capacity
- › The auction is a multi-round, sealed bid, pay-as-bid auction
- › A total of 13 million short term Standard Bundled Units (SBUs) are offered, representing 13 TWh of primary storage capacity:
 - In the first round 3 million SBUs are offered for the contract period 2015/2018
 - In the second round 3 million SBUs are offered for the contract period 2015/2017
 - In the third round (13 million – allocation round 1 – allocation round 2) SBUs are offered for the contract period 2015/2016
- › The auction will start at 11:00 CEST
 - Each round will last 30 minutes with 30 minutes between the rounds
- › Participant can submit up to 5 bids
- › The auction will be held on ICE Endex' proprietary auction platform

The Auction - Pricing

- › The SBUs are offered at an indexed price formula, expressed in €/SBU:
 - Price per SBU = Multiplier (X) * Storage Spread,
 - with Storage Spread =
difference between Winter/Summer prices for that storage year as published by ICE Endex between 15 October and 15 March (with the exception of the period 15 December till 15 January) preceding the storage year.
(For the exact definition please turn to the SSSA)
- › TAQA has set a Reserve Multiplier, below which it not sell any SBUs, of 1.1 for all rounds
- › The auction is pay-as-bid

The Auction – Submitting a bid

- › The reserve multiplier is 1.1
- › Each bidder can submit up to 5 separate bids per round (which cannot be cancelled)
- › A bid shall consist of a volume and multiplier
 - The volume of the bids of a bidder combined during the auction may not exceed the bidder limit set by TAQA
 - The volume will be expressed as a non-negative whole number
 - The multiplier will be expressed as a non-negative number with up to two decimals
 - The bids have to be submitted during the opening of the auction
- › During the auction bids can be adjusted but bids cannot be cancelled

The Auction – Allocation

- › Round 1: 3 Million SBUs contract period 2015/2018 (representing 3 TWh of storage)
- › Round 2: 3 Million SBUs contract period 2015/2017 (representing 3 TWh of storage)
- › Round 3: (13 million – allocation round 1 – allocation round 2) SBUs contract period 2015/2016

- › After each round closes the auctioneer, observed by a notary, shall calculate:
 - Aggregated demand: the quantity of all valid bids
 - The Cut Off multiplier: the highest multiplier against which the total amount of SBUs offered in the round can be allocated
 - The number of allocated SBUs

- › The allocation rules are as follows:
 - No more than the total amount of SBUs offered will be allocated
 - SBUs will be allocated in order of the value of their multiplier
 - Bids with a multiplier higher than the cut off multiplier will be allocated the entire requested quantity in the bid
 - If there is one bid with a multiplier equal to the cut off multiplier, that bid shall be allocated the remaining SBUs
 - If there are more bids with a multiplier equal to the cut off multiplier, these bids will be allocated pro rate the quantity of the bid

Allocation Round 1 – 3 Million 3 year SBUs

Max. Supply	Res. Multi.	Entity	Q	Multi.	Cum. Q.	Alloc.
3,000,000	1.1	D	100,000	1.53	100,000	100,000
3,000,000	1.1	A	200,000	1.5	300,000	200,000
3,000,000	1.1	B	600,000	1.46	900,000	600,000
3,000,000	1.1	F	550,000	1.45	1,450,000	550,000
3,000,000	1.1	E	450,000	1.4	1,900,000	450,000
3,000,000	1.1	C	600,000	1.35	2,500,000	600,000
3,000,000	1.1	B	100,000	1.3	2,600,000	100,000
3,000,000	1.1	G	250,000	1.25	2,850,000	250,000
<u>3,000,000</u>	<u>1.1</u>	<u>E</u>	<u>500,000</u>	<u>1.21</u>	<u>3,350,000</u>	<u>150,000</u>
3,000,000	1.1	H	100,000	1.20	3,450,000	-
3,000,000	1.1	I	250,000	1.20	3,700,000	-
3,000,000	1.1	B	500,000	1.16	4,200,000	-

Allocation Round 2 – 3 Million 2 year SBUs

Max. Supply	Res. Multi.	Entity	Q	Multi.	Cum. Q.	Alloc.
3,000,000	1.1	G	250,000	1.54	250,000	250,000
3,000,000	1.1	A	350,000	1.5	600,000	350,000
3,000,000	1.1	B	450,000	1.46	1,050,000	450,000
3,000,000	1.1	F	550,000	1.45	1,600,000	550,000
3,000,000	1.1	E	250,000	1.4	1,850,000	250,000
3,000,000	1.1	C	300,000	1.35	2,150,000	300,000
3,000,000	1.1	B	200,000	1.3	2,450,000	200,000
3,000,000	1.1	G	250,000	1.25	2,700,000	250,000
<u>3,000,000</u>	<u>1.1</u>	<u>F</u>	<u>100,000</u>	<u>1.23</u>	<u>2,800,000</u>	<u>40,000</u>
<u>3,000,000</u>	<u>1.1</u>	<u>H</u>	<u>400,000</u>	<u>1.23</u>	<u>3,200,000</u>	<u>160,000</u>
<u>3,000,000</u>	<u>1.1</u>	<u>I</u>	<u>250,000</u>	<u>1.23</u>	<u>3,450,000</u>	<u>100,000</u>
3,000,000	1.1	B	750,000	1.16	4,100,000	-

Allocation Round 3 – 1 year SBUs

Max. Supply	Res. Multi.	Entity	Q	Multi.	Cum. Q.	Alloc.
7,000,000	1.1	(...)	(...)	(...)	4,900,000	(...)
7,000,000	1.1	A	200,000	1.5	5,100,000	200,000
7,000,000	1.1	B	300,000	1.46	5,400,000	300,000
7,000,000	1.1	F	250,000	1.45	5,650,000	250,000
7,000,000	1.1	E	400,000	1.4	6,050,000	400,000
7,000,000	1.1	C	300,000	1.35	6,350,000	300,000
7,000,000	1.1	B	200,000	1.33	6,550,000	200,000
7,000,000	1.1	G	150,000	1.30	6,700,000	150,000
7,000,000	<u>1.1</u>	<u>E</u>	<u>300,000</u>	<u>1.29</u>	<u>7,000,000</u>	<u>200,000</u>
7,000,000	<u>1.1</u>	<u>H</u>	<u>150,000</u>	<u>1.29</u>	<u>7,150,000</u>	<u>100,000</u>
7,000,000	1.1	I	100,000	1.28	7,250,000	-
7,000,000	1.1	B	500,000	1.26	7,750,000	-

Contract value example

- › Bidder submitted 4 bids:

Quantity	Multiplier	Round	Contract Period	Cut Off Multiplier
350,000	1.52	1	2015/2018	1.21
500,000	1.42	2	2015/2017	1.23
100,000	1.29	3	2015/2016	1.28
250,000	1.21	3	2015/2016	1.28

Contract value 1st Storage Year:

- › Storage Spread is 2.20 EUR/SBU
 - › Quantity * (Multiplier * Storage Spread) = 350,000 * (1.52 * 2.20) = 1,170,400 euro
 - › Quantity * (Multiplier * Storage Spread) = 500,000 * (1.42 * 2.20) = 1,562,000 euro
 - › Quantity * (Multiplier * Storage Spread) = 100,000 * (1.29 * 2.20) = 283,800 euro
- Total Contract Value = 3,016,200 euro
- › The Contract Value for the 2nd and 3rd Storage Year depends on the then applicable Storage Spread

After the Auction

- › Allocation constitutes a binding agreement with TAQA for the acquisition of primary gas storage capacity at Gas Storage Bergermeer
- › After the Auction TAQA will take over:
 - Settlement and invoicing of the auction
 - Daily operations/nominations



Gas Storage Bergermeer Secondary Market

GSB Market

- › The Gas Storage Bergermeer Market makes available for trading products relating to secondary capacity rights
- › Market open: Q4 2014
- › Market is organized under the Gas Market Rules of ICE Endex Gas B.V.
- › The GSB Market is a continuous market available/hosted on WebICE. All Members will get View Only access
- › The market is open for trading during business days from 08:00 till 18:00 CET
- › Settlement: TAQA performs post-trade validation and ensures settlement, including invoicing

GSB Market Products

- › The products are compatible with the TTF natural gas futures and spot products:

Product	Strip
Standard Bundled Units	Balance of Storage Year
	Next Storage Year
Injection/Withdrawal Capacity	Day-Ahead
	Weekend
	Month-Ahead
	Quarter-Ahead
Space	Balance of Storage Year
Gas-in-Store	Day-Ahead
	Saturday

Sell GSB/Buy TTF

Deal Confirmation

YOU BUY Ice™

Buy 30 @ 0.05
DA

Product: ICE Endex GSB INJ
Title Transfer Facility
Strip: DA

Quantity: 30
MW
Price: 0.05 euro / MWh

GIS Contract Value:	30 MW * 25 EUR/MWh =	+ 18,000 EUR
TTF Contract Value:	30 MW * 24 EUR/MWh =	- 17,280 EUR
INJ Contract Value	30 MW * 0.05 EUR/MWh =	- 36 EUR
Injection costs:	30 MW * 0.2 EUR/MWh =	- 144 EUR
Transaction Costs TTF:	720 * 0.0025 EUR =	- 1.80 EUR
Clearing Fee TTF:	720 * 0.0050 EUR =	- <u>3.60 EUR</u>
Profit:		534,60 EUR

ICE Endex GSB INJ	TTF	Jun14	+	Hit	30	0.05	0.10	60	Lift
ICE Endex GSB INJ	TTF	W/END	+	Hit	15	0.06	0.11	30	Lift
ICE Endex GSB INJ	TTF	Q3 14	+	Hit	60	0.04	0.07	60	Lift
ICE Endex GSB WITH	TTF	DA	+	Hit	60	0.06	0.09	120	Lift
ICE Endex GSB WITH	TTF	W/END	+	Hit	30	0.07	0.09	30	Lift
ICE Endex GSB WITH	TTF	Jun14	+	Hit	90	0.03	0.05	60	Lift
ICE Endex GSB WITH	TTF	Q3 14	+	Hit	30	0.02	0.04	60	Lift
ICE Endex GSB Space	TTF	BalStorYear	+	Hit	720	1.89	1.99	1440	Lift
ICE Endex GSB SPU	TTF	BalStorYear	+	Hit	1000	2.50	2.05	500	Lift



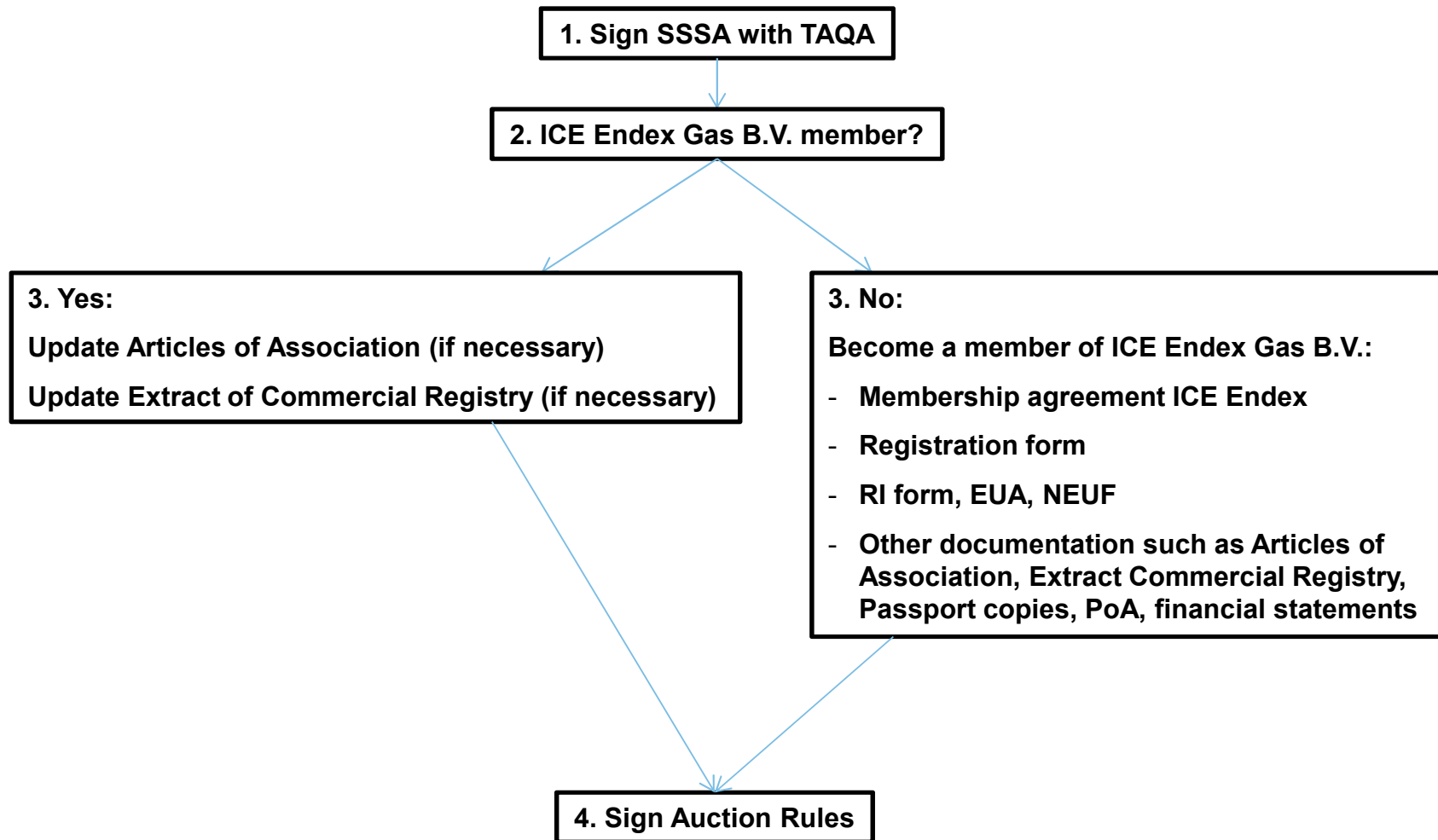
Cost of Trading GSB

0



Qualification Process

Qualification requirements



Qualification process auction

- › Prerequisites must be met no later than 10 Business Days prior to the auction date
- › ICE Endex will confirm admission and issue the following documents
 - Instruction to Bidders; stipulate the conduct of the auction, in particular the method and contents of communication during the auction (5 days prior to the auction date)
 - Username and password; username and password shall be issued independently from each other to the person identified as the contact person (3 days prior to the auction date)
- › Participants shall confirm receipt of the documents with the Auction Access Confirmation
- › On 10 September 2014 ICE Endex will host test auction



› Questions?

Contact Details

- › Harrie Arts (Associate Business Development)
 - +31 (0)20 305 5174
 - harrie.arts@theice.com

- › Christian Moger (Commercial Manager Spot Markets)
 - +31 (0)20 305 5176
 - +31 (0)6 46 64 17 08
 - christian.moger@theice.com

- › Jurriën Wesselius (Associate Marketing & Communication)
 - +31 (0)20 305 5167
 - jurrien.wesselius@theice.com

DISCLAIMER

The information contained in this document ("Presentation") has been prepared by ICE Endex and is subject to change without notice. Copyright and intellectual property right protection exists in this Presentation and it may not be reproduced, distributed or published with any third party, in whole or in part, without the express prior written permission from ICE Endex. All rights are reserved. While reasonable care has been taken to ensure that the information contained herein is true and accurate, ICE Endex makes no representation to its correctness, reliability or completeness including likelihood of achievement or reasonableness of any forecasts, prospects, returns or statements in relation to future matters that may be contained in this Presentation. Neither ICE Endex nor any of its directors or employees accepts any liability in respect of the information contained in the Presentation or for any loss arising from the use of this Presentation, its contents or otherwise arising in connection with it. This Presentation does not constitute an offer, invitation or recommendation to any transaction and neither is it to be taken as any form of commitment on the part of ICE Endex to proceed with any transaction.