gasunie
transport services

Explanation GTS Tariff Proposal 2021

2 March 2020 (updated on 17 April 2020)

Proposed tariffs 2021

	Reference Price (€/kWh/h/y)	Neutrality charge (€/kWh/h/y)	All-in tariff (€/kWh/h/y)
Non-storage entry	1,775	0,033	1,808
Non-storage exit	2,256	0,042	2,298
Storage entry	0,710	0,013	0,723
Storage exit	0,903	0,017	0,920

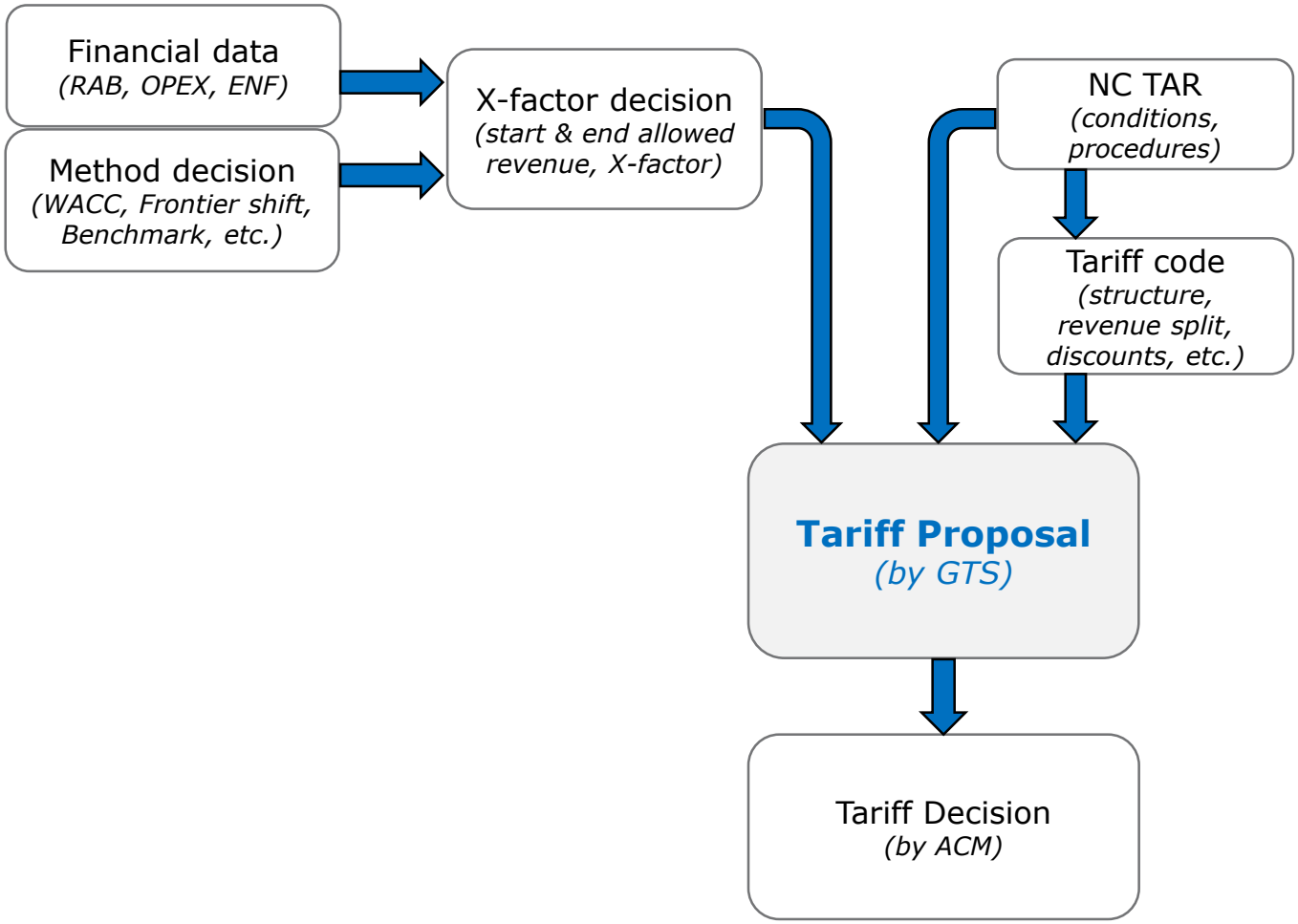
The average all-in tariff is **6%** higher compared to 2020, mainly due to the following factors:

- 4% due to reference price
  - The changed x-factor decision 2017-2021 results in an increase of allowed revenue for the years 2017-2021 by EUR 45 million. This difference must be fully settled in the 2021 tariffs and leads to a tariff increase of 5%;
  - The effect of declining capacity sales is expected to be a tariff increase of 2%;
  - Applying reconciliation, corrections, inflation and x-factor results in a tariff decrease of 3%
- 2% due to neutrality charge
  - The neutrality charge imposed as a consequence of NC BAL leads to an increase of 2%

Content

Content

Context of the Tariff proposal



Key elements of NC TAR agreement

Key elements	NC TAR decision
Services	All-in Transmission service (no different tariffs anymore for transport, quality conversion, balancing and connection)
Reference Price Methodology (RPM)	Postage stamp
Share of allowed revenue received from entry points	40%
Share of allowed revenue received from exit points	60%
Storage discount	60%
LNG discount	0%
Multiplier for daily and within-day product	1,75
Multiplier for monthly product	1,50
Multiplier for quarterly product	1,25
Seasonal factors for non yearly products	Yes
Interruptible capacity discount	Ex ante; discount is 0,02%*
Wheeling capacity discount	94%
Shift of capacity on FCFS exit points	Only under strict conditions
Shorthaul	No longer possible
Backhaul	Replaced by regular firm or interruptible & entry or exit capacity
Diversion, ToC, ToU	Services still available, but no administrative fee anymore

* https://www.acm.nl/nl/publicaties/ontwerp-codebesluit-wijziging-korting-afschakelbare-capaciteit

Content

Forecasted Contracted Capacity 2021

What is forecasted contracted capacity (FCC)?

- We forecast the sale of our 5 standard capacity products: within-day, day, month, quarter, year
- We translate each forecasted capacity of a non-yearly product to a capacity value of the yearly product
  - using the multiplier, the seasonal factor and the year fraction for each non-yearly product (M * Sf * Yf)
- The sum of all these "yearly" capacities is the 'forecasted contracted capacity'

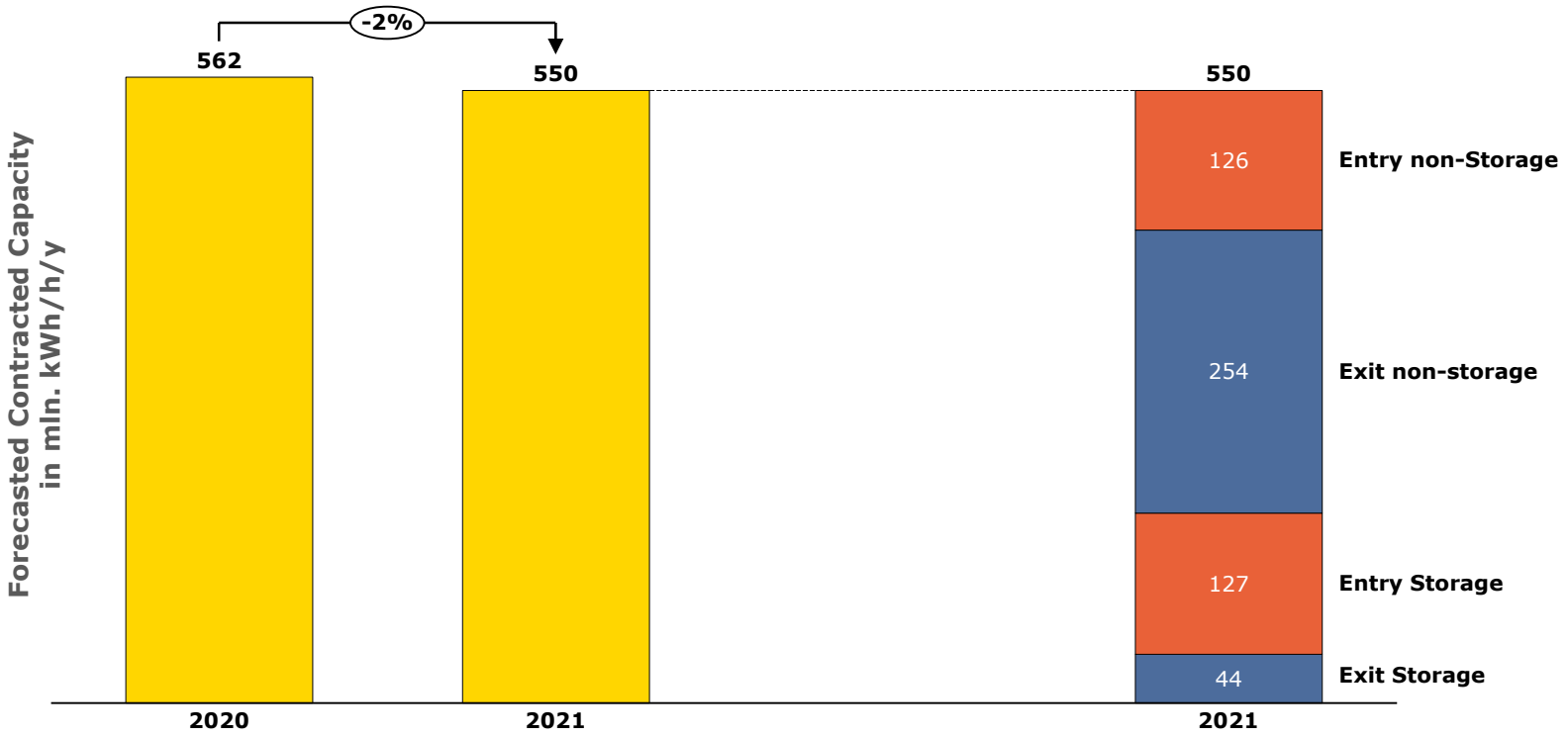
How do we forecast the FCC?

- We forecast the FCC per segment: Storage, Border points, Production points, LNG, Local distribution points, Industry
- Two types per segment: already contracted capacity + expected capacity sales
- Expected capacity sales are based on historical analysis and expectation from shippers, operators etc.

What if the realised capacity sales differ from the FCC?

- With an accurate forecast, shippers will pay the right tariff for the capacity products
- Realised revenue > Allowed revenue: Shippers paid too much
- Realised revenue < Allowed revenue: Shippers paid too little
- Because of revenue cap regulation differences will be reconciliated two years later
- With an accurate forecast reconciliation T+2 will be minimised

Forecasted Contracted Capacity 2020 versus 2021



Explanation differences between 2020 and 2021

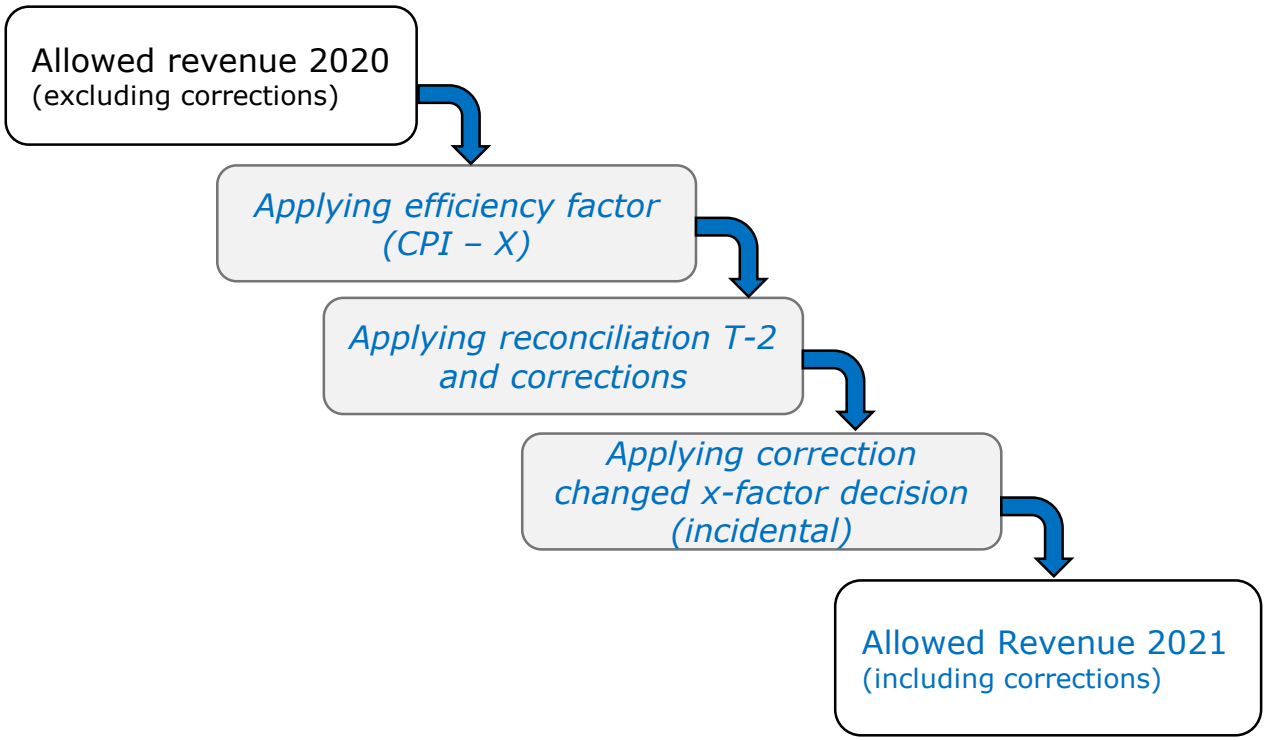
- Expiring long-term contracts
  - We expect shippers will switch to short-term bookings
    - Shippers can predict their short-term capacity needs better
    - We expect shippers to contract a lower level of capacity
- LNG glut
  - Will lead to additional uncertainty on how much capacity will be booked additionally at entry border points
- Expected Inter-TSO Compensation from BBL has been taken into account in the FCC estimation
- Total expected decrease: 2%

Explanation differences between 2020 and 2021

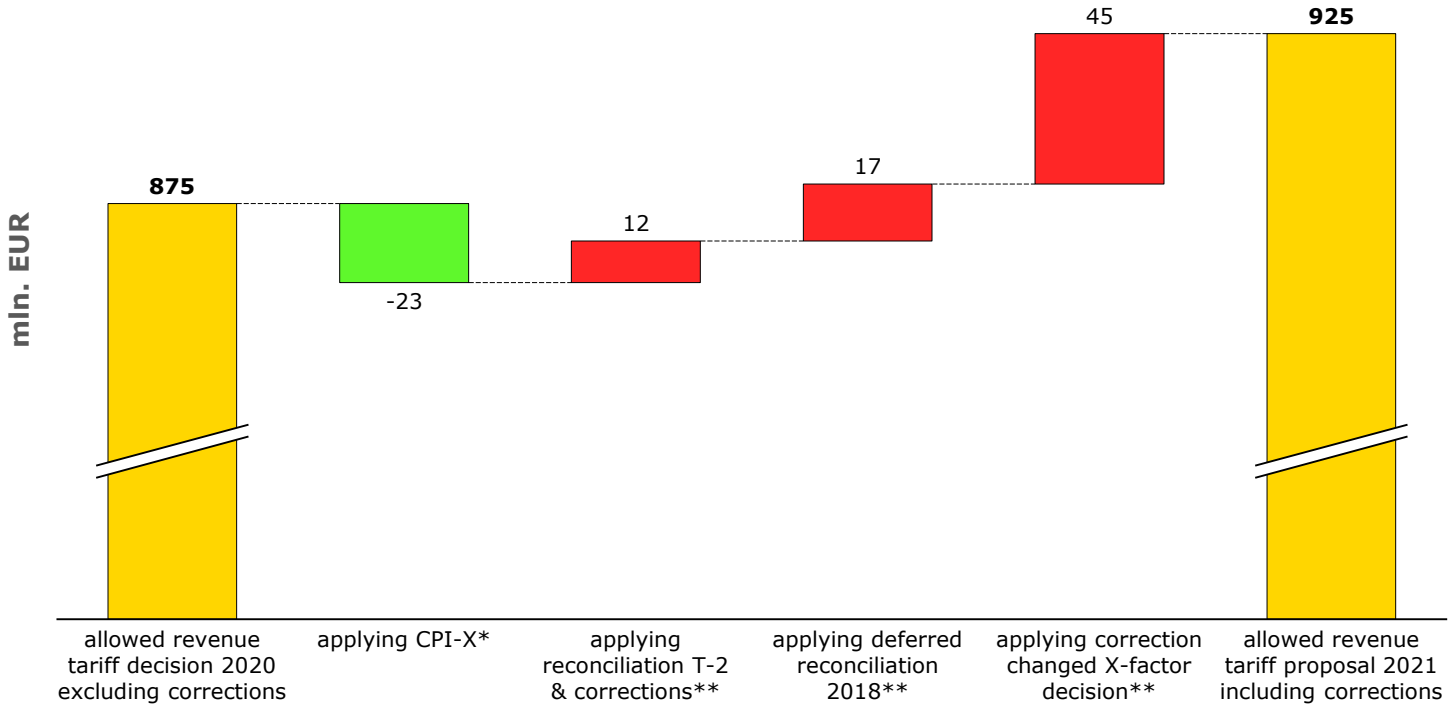
	FCC	FCC	Inter-TSO compensation included	Inter-TSO compensation excluded	
	2020	2021	Δ 20/21	Δ 20/21	Main causes ΔFCC (before ITC)
Entry border points	70	68	-2	-4	LNG will replace (still non-booked) import
Entry LNG	17	16	0	0	-
Entry production points	50	41	-9	-10	Decline Groningen and Small Fields
Entry storage	134	127	-7	-10	Some LT contracts end at some OSZ storages
Exit storage	45	44	-1	-2	Some LT contracts end at some OSZ storages; send in Norg
Exit industrial points	46	49	3	2	Zebra +2,5, Delfzijl/Eemshaven -0,8
Exit local distribution points	97	102	6	4	Zebra +0,4; local distribution points correction +3,1 (2020 estimation too low)
Exit border points	103	102	0	-3	Some LT contracts end at some exit points in South NL
Total	**562**	**550**	**-12**	**-24**	

Content

Determination of allowed revenue 2021 (1/2)



Determination of allowed revenue 2021 (2/2)



*Based on an estimated CPI of 2,0%. The final CPI will be available in April 2020 and will be applied by ACM in the tariff decision.

** See appendix 5 and 6 for a detailed overview of these corrections

Content

Input parameters for RPM

Parameter	Value	Remark
Share of allowed revenue received from entry points	40%	NC TAR decision
Share of allowed revenue received from exit points	60%	
Storage discount	60%	
Allowed revenue	925M €	tariff decision by ACM, yearly
Forecasted contracted entry capacity	252M kwh/h/y	
Forecasted contracted exit capacity	298M kwh/h/y	
Forecasted contracted entry Storage capacity	127M kwh/h/y	
Forecasted contracted exit Storage capacity	44M kwh/h/y	

gasunie
transport services

Reference price calculation in four steps

Input parameters for RPM

Step 1: Determine original reference prices
Entry: (925 * 40%) / 252 = €1,467
Exit: (925 * 60%) / 298 = €1,865

Step 2: Determine original storage reference prices
Entry: €1,467 * (1 - 60%) = €0,587
Exit: €1,865 * (1 - 60%) = €0,746

Step 3:Determine rescale factor
Revenue after step 1: 925 M€
Revenue after step 2: 764 M€
Rescale factor: 925 / 764 = 1,210

Step 4: Determine reference prices
- Non-storage entry: €1,467 * 1,210 = €1,775
- Non-storage exit: €1,865 * 1,210 = €2,256
- Storage entry: €0,587 * 1,210 = €0,710
- Storage exit: €0,746 * 1,210 = €0,903

Reference prices
- Non-storage entry: €1,775
- Non-storage exit: €2,256
- Storage entry: €0,710
- Storage exit: €0,903

Content

Introduction of neutrality charges for Balancing

- The neutrality charge for balancing activities is an NC BAL obligation
- NC BAL states that a TSO shall not gain or lose by the payment and receipt of any of its balancing activities (article 29)
- A code change is currently under review by ACM in order to approve the methodology for the calculation of the neutrality charges for balancing activities
- The charge consists of the Linepack Flexibility Service fee (regular) and incidental balancing costs (like defaults)
- Trigger for this proposed change was given by ACM as a consequence of a fraud case in december 2018 leading to non-payment of balancing actions invoices
- The methodology for the calculation of the neutrality charges for balancing activities is equal to the calculation method for the reference price and the reserve prices for transmission services as set out in the NC TAR decision by ACM
- As a consequence each capacity product (except wheeling) will have a tariff set by ACM and a neutrality charge determined by GTS
- Regarding LFS, the charge is financially neutral for all shippers because we use the same distribution key for the neutrality charge as for the tariffs (For 2020 LFS is part of the transmission costs)
- For 2021 the neutrality charge amounts to approximately EUR 17 mln., normally around -1 million EUR (LFS)
- ACM is expected to approve the proposed code change by May 2020

Neutrality charge calculation (using RPM method)

Input parameters for RPM

Step 1: Determine original reference prices
Entry: (17 * 40%) / 252 = €0,027
Exit: (17 * 60%) / 298 = €0,035

Step 2: Determine original storage reference prices
Entry: €0,027 * (1 - 60%) = €0,011
Exit: €0,035 * (1 - 60%) = €0,014

Step 3:Determine rescale factor
Revenue after step 1: 17 M€
Revenue after step 2: 14 M€
Rescale factor: 17 / 14 = 1,210

Step 4: Determine reference prices
- Non-storage entry: €0,027 * 1,210 = €0,033
- Non-storage exit: €0,035 * 1,210 = €0,042
- Storage entry: €0,011 * 1,210 = €0,013
- Storage exit: €0,014 * 1,210 = €0,017

Neutrality charges
- Non-storage entry: €0,033
- Non-storage exit: €0,042
- Storage entry: €0,013
- Storage exit: €0,017

Content

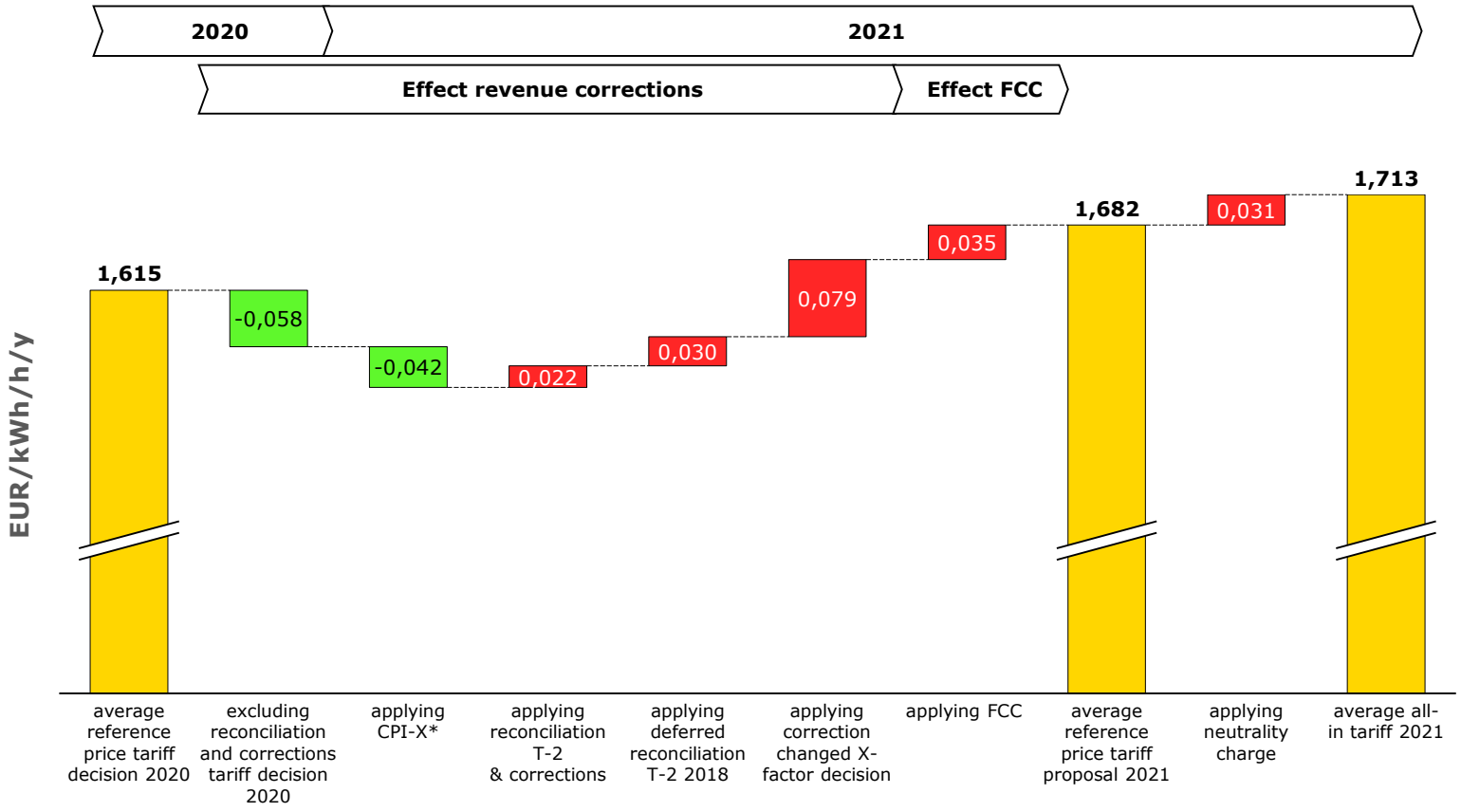
Proposed all-in tariffs 2021 versus 2020

Reference prices	2021 Reference Price (€/kWh/h/y)	2021 Neutrality charge (€/kWh/h/y)	2021 All-in tariff (€/kWh/h/y)	2020 Decision ACM (€/kWh/h/y)
Non-storage entry	1,775	0,033	1,808	1,620
Non-storage exit	2,256	0,042	2,298	2,268
Storage entry	0,710	0,013	0,723	0,648
Storage exit	0,903	0,017	0,920	0,907

Average tariff*	2021 (€/kWh/h/y)	2020 (€/kWh/h/y)	Delta
	1,713	1,615	6%

*This is the weighted average of the 4 all-in tariffs

Explanation average (all-in) tariff increase

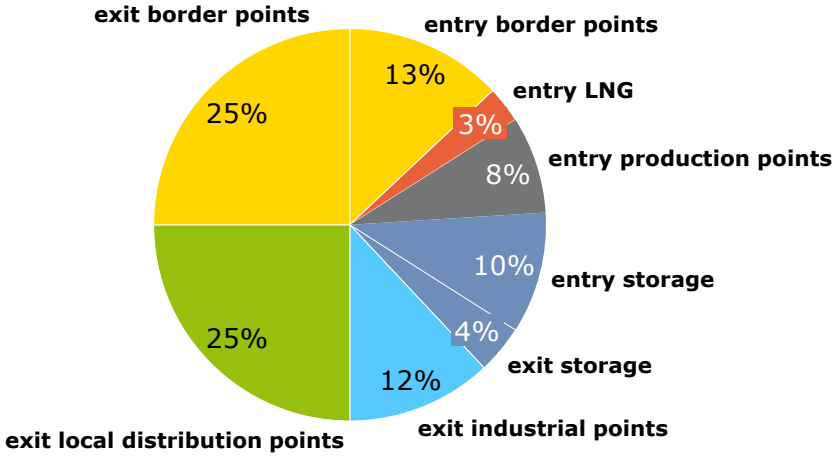


*Based on an estimated CPI of 2,0%. The final CPI will be available in April 2020 and will be applied by ACM in the tariff decision.

Expected revenue distribution per segment

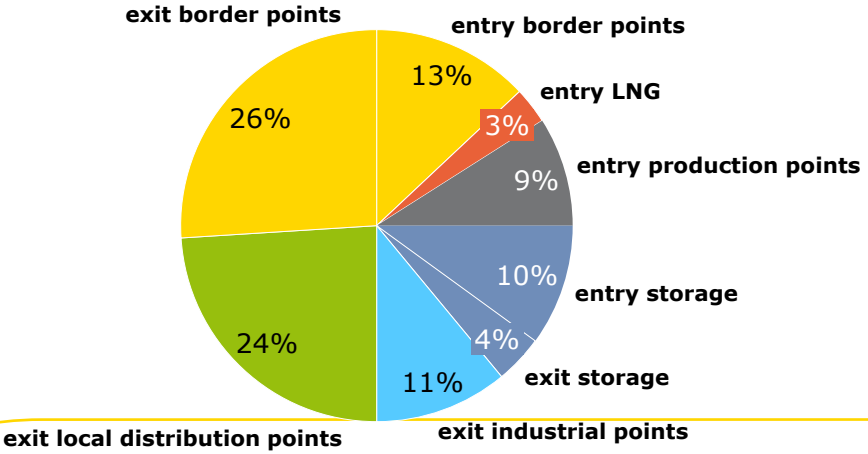
Segment	Forecasted contracted capacity 2021 *(Million kWh/h/y)*	Expected revenue 2021 *(M€)*
Entry border points	68	121
Entry LNG	16	29
Entry production points	41	73
Entry storage	127	90
Exit storage	44	40
Exit industrial points	49	110
Exit local distribution points	102	231
Exit border points	102	231
Total (all numbers rounded)	**550**	**925**

2021



Segment	Forecasted contracted capacity 2020 *(Million kWh/h/y)*	Expected revenue 2020 *(M€)*
Entry border points	70	114
Entry LNG	17	27
Entry production points	50	82
Entry storage	134	87
Exit storage	45	41
Exit industrial points	46	104
Exit local distribution points	97	220
Exit border points	103	233
Total (all numbers rounded)	**562**	**907**

2020

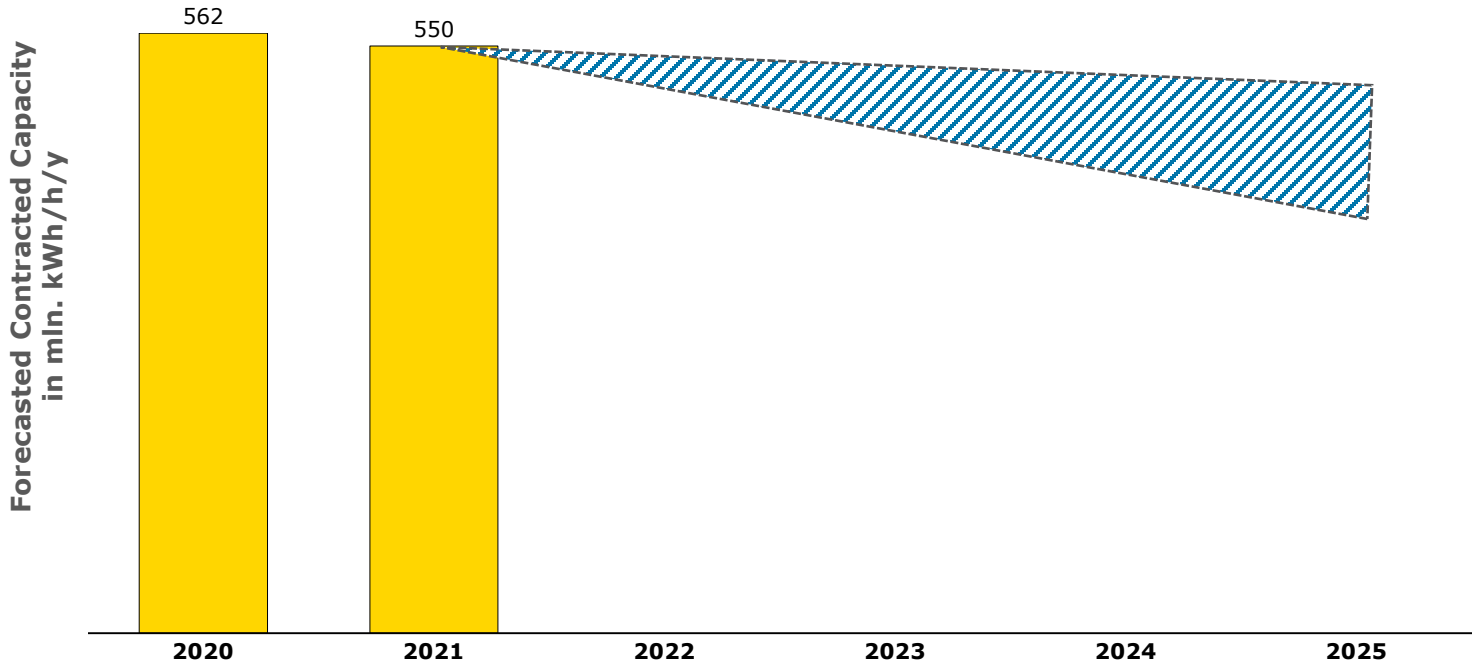


Content

Reference price development 2022 and beyond

- Current regulation period ends in 2021
- No indication of allowed revenue from 2022 onwards
- Reference price is based on allowed revenue, therefore no reference price indication from 2022 onwards
- Indication of forecasted contracted capacity is possible

Indication Forecasted Contracted Capacity



Content

Additional costs due to Groningen decline

- Several investments are needed to facilitate the Groningen decline.
  A rough estimate of the costs for these measures is shown below

Project	Total investment (EUR mln.)	Effect on opex +ENF (EUR mln./y)	When finalized	When in tariff
Zuidbroek N2	556	30	2022	Uncertain until new method decision for the next regulatory period
Wieringermeer N2	24	13	2020	
Industry conversion	85-150	1*	2022	
Other small investments	5	-	2019/2020	

- The impact of these investments on allowed revenues and tariffs will largely come into effect during the next regulatory period from 2022 onwards.
  Depending on exact regulatory conditions, the total effect is expected to be a structural tariff increase of around 10%

* The alternative of not converting industries leads to additional QC-costs of approximately EUR 10 mln./y

Content

Next steps

Early March 2020:

- GTS will send tariff proposal 2021 to ACM (3 March)
- ACM will publish our proposal on ACM website
- GTS will publish this presentation on GTS website
- Market parties can send their written view to ACM within two weeks after publication on ACM website
- GTS publishes proposed neutrality charge on GTS website

Mid May 2020:

- ACM determines final reference prices in tariff decision 2021 and publishes this on ACM website
- GTS publishes final neutrality charge in parallel with tariff decision

Early June 2020:

- GTS will process tariffs 2021 in GTS ICT systems
- ACM will publish tariff decision according NC TAR publication obligations
- GTS will determine entry/exit network points and publishes this in TSC at GTS website

1 jan 2021:

- Start of 2021 tariffs

Thank you for your attention!

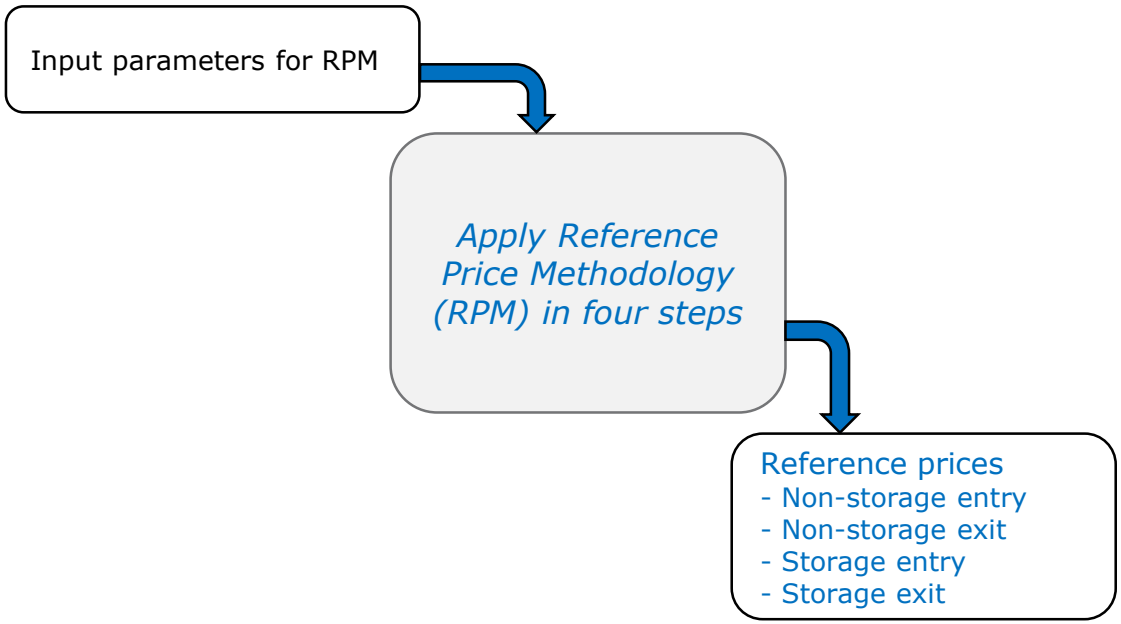
Content

Appendix

1. How to determine reference prices
2. How to determine reserve prices
3. Overview of proposed reserve prices
4. NC-TAR agreement: Traceability of entry and exit tariffs
5. Details of reconciliation T-2 and corrections
6. Details of correction changed x-factor decision

1. How to determine reference prices

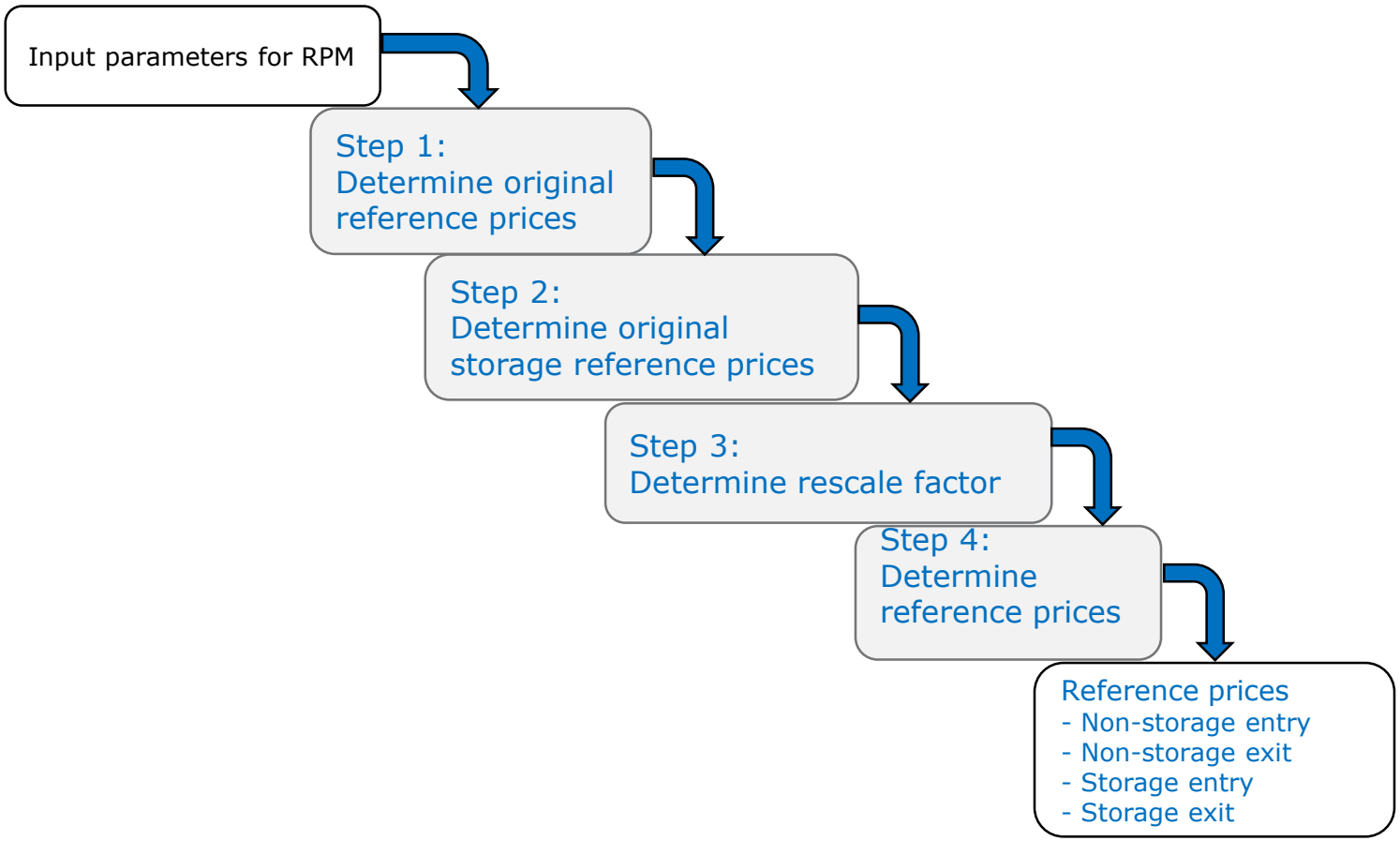
'reference price' means the price for the yearly firm standard capacity product



1. Input parameters for RPM

Parameter	Value	Remark
Share of allowed revenue received from entry points	40%	NC TAR decision
Share of allowed revenue received from exit points	60%	
Storage discount	60%	
Allowed revenue		tariff decision by ACM, yearly
Forecasted contracted entry capacity		
Forecasted contracted exit capacity		
Forecasted contracted entry Storage capacity		
Forecasted contracted exit Storage capacity		

1. Reference price methodology (RPM) in four steps



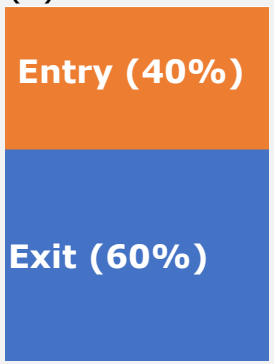
1. Step 1: Determine Original Reference prices

Allowed revenue,
Share of allowed revenue received from entry points,
Share of allowed revenue received from exit points,
Forecasted contracted entry capacity,
Forecasted contracted exit capacity

Step 1: Determine Original Reference prices

RPM is postage stamp methodology
- All entry points have the same original reference price
- All exit points have the same original reference price

Allowed revenue (€)



Divided by

Forecasted contracted Capacity (kWh/h)

Original reference price

1. Step 2: Determine original storage reference price

Original reference price

Storage discount (60%)

Step 2:
Determine original storage reference price

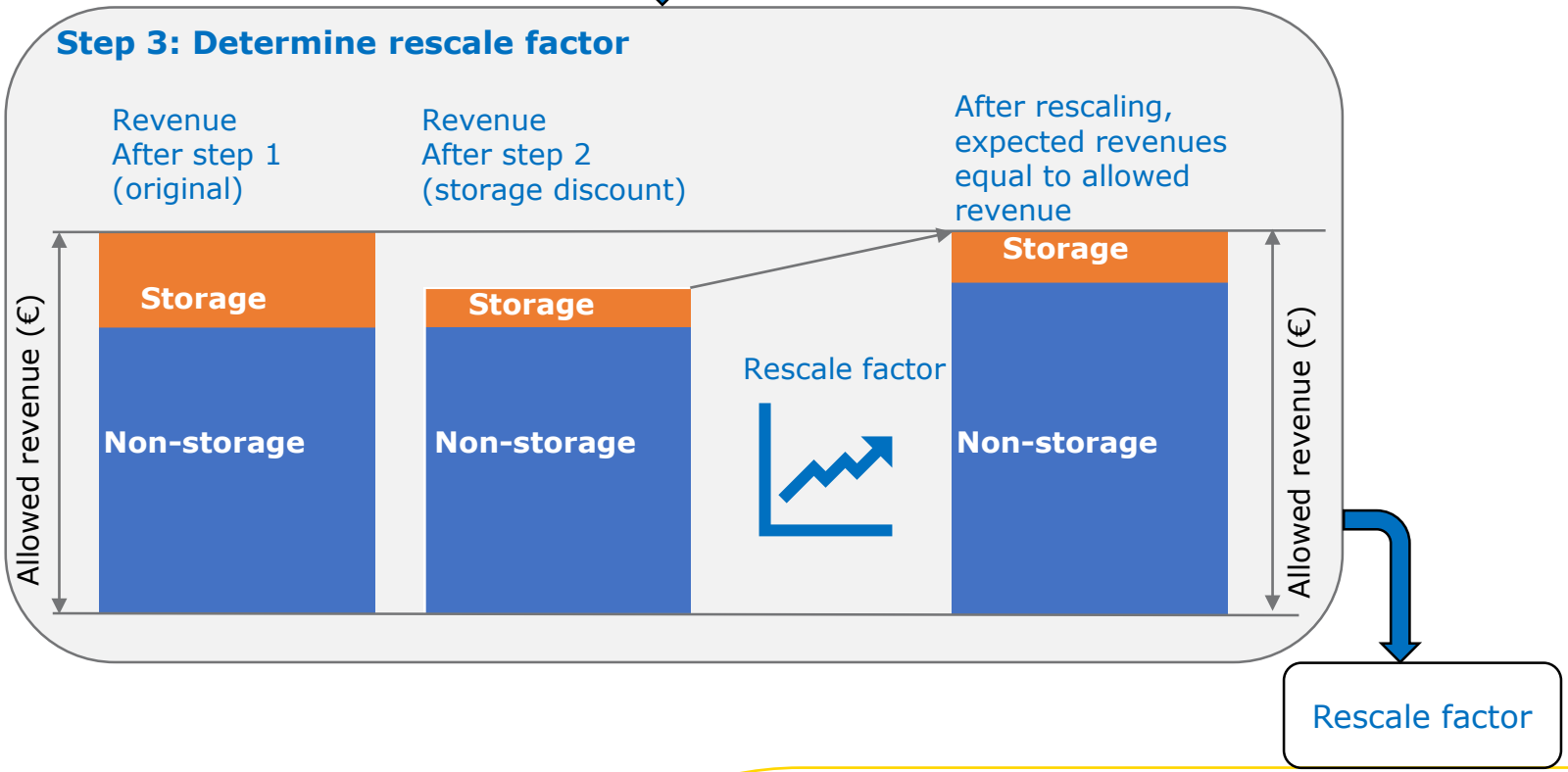
Apply storage discount to original reference price

& Storage discount (60%)

Original storage reference price

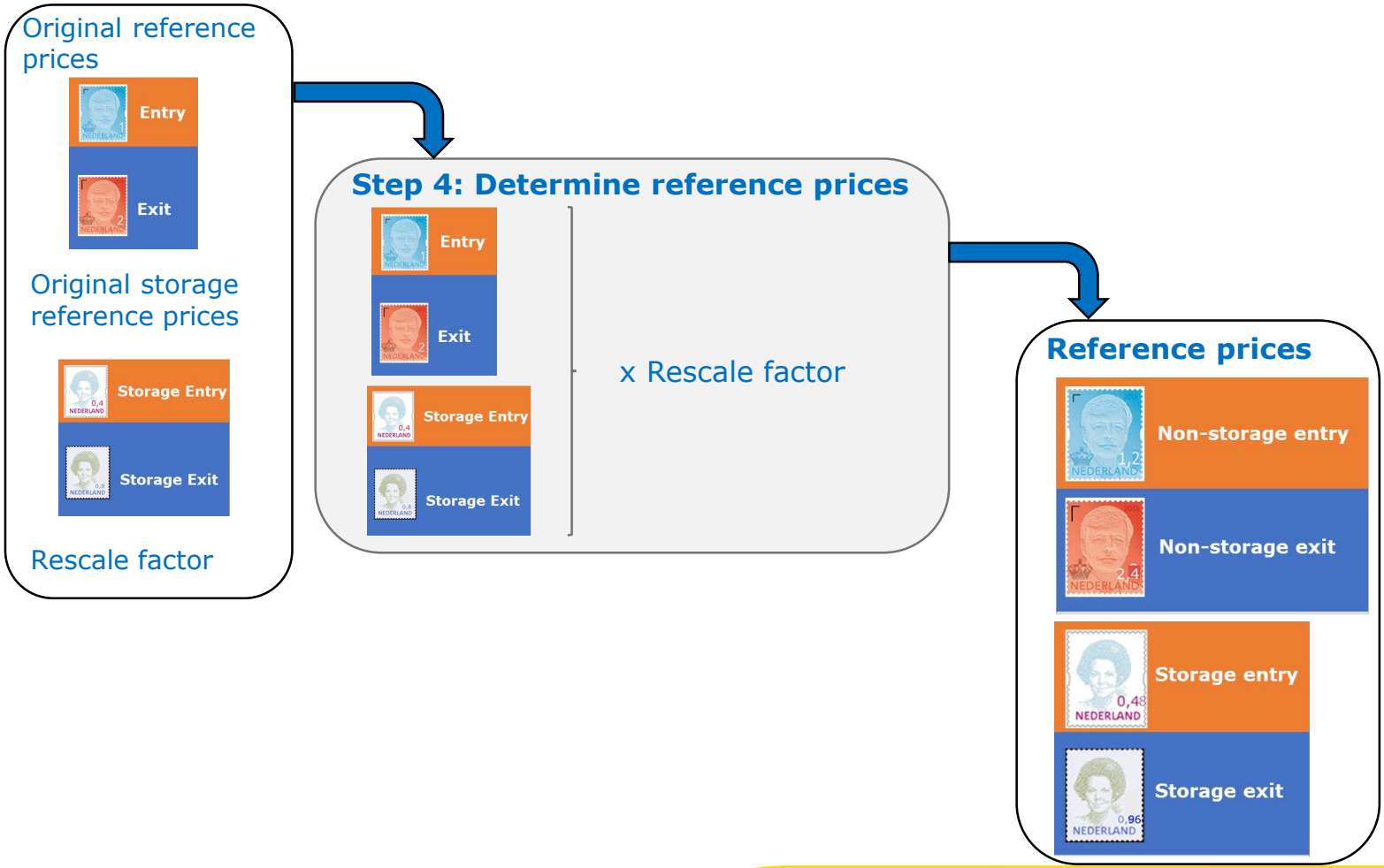
1. Step 3: Determine rescale factor

Original reference prices
Original storage reference prices
Forecasted contracted entry storage capacity
Forecasted contracted exit storage capacity
Allowed revenue



Rescale factor

1. Step 4: Determine reference prices



2. How to determine reserve prices

'reserve price' means the price for a **non**-yearly firm standard capacity product

Reference prices

Multiplier
Seasonal Factors
Year fraction

Determine reserve prices for non-yearly firm standard products

*Reserve price = Multiplier * Seasonal Factor * Year fraction * Reference Price*

For each product (Within-day, Day, Month, Quarter) there is a specific multiplier and a set of seasonal factors

Reserve prices for non-yearly firm standard products

3. Overview of proposed all-in reserve prices (1/4)

Non-storage Entry

Product ->	Year	Quarter	Month	Day	Within-day
	EUR/kWh/h/y	EUR/kWh/h/q	EUR/kWh/h/m	EUR/kWh/h/d	EUR/kWh/h/h
January	1,80753729	0,86520372	0,41104141	0,01626660	0,00067779
February			0,34672032	0,01519198	0,00063300
March			0,27794229	0,01099751	0,00045824
April		0,40107519	0,19142563	0,00782564	0,00032607
May			0,15566610	0,00616172	0,00025675
June			0,13370824	0,00546842	0,00022787
July		0,31436293	0,12780279	0,00505243	0,00021053
August			0,12158535	0,00480978	0,00020042
September			0,12791422	0,00523443	0,00021811
October		0,67371619	0,17155510	0,00679436	0,00028311
November			0,26897641	0,01099751	0,00045824
December			0,36728911	0,01453335	0,00060556

3. Overview of proposed all-in reserve prices (2/4)

Non-storage Exit

Product ->	Year	Quarter	Month	Day	Within-day
	EUR/kWh/h/y	EUR/kWh/h/q	EUR/kWh/h/m	EUR/kWh/h/d	EUR/kWh/h/h
January	2,29822834		0,52262657	0,02068248	0,00086178
February		1,10008005	0,44084428	0,01931614	0,00080484
March			0,35339511	0,01398298	0,00058264
April			0,24339182	0,00995007	0,00041460
May		0,50995483	0,19792468	0,00783445	0,00032644
June			0,17000594	0,00695293	0,00028971
July			0,16249734	0,00642402	0,00026768
August		0,39970283	0,15459206	0,00611549	0,00025483
September			0,16263901	0,00665542	0,00027732
October			0,21812706	0,00863882	0,00035996
November		0,85660952	0,34199527	0,01398298	0,00058264
December			0,46699685	0,01847870	0,00076996

3. Overview of proposed all-in reserve prices (3/4)

Storage Entry

Product ->	Year	Quarter	Month	Day	Within-day
	EUR/kWh/h/y	EUR/kWh/h/q	EUR/kWh/h/m	EUR/kWh/h/d	EUR/kWh/h/h
January			0,16441656	0,00650664	0,00027112
February		0,34608149	0,13868813	0,00607679	0,00025321
March			0,11117692	0,00439900	0,00018330
April			0,07657025	0,00313025	0,00013044
May		0,16043007	0,06226644	0,00246469	0,00010271
June			0,05348329	0,00218737	0,00009116
July	0,72301492		0,05112112	0,00202098	0,00008422
August		0,12574517	0,04863414	0,00192391	0,00008018
September			0,05116568	0,00209378	0,00008725
October			0,06862204	0,00271774	0,00011325
November		0,26948648	0,10759056	0,00439900	0,00018330
December			0,14691564	0,00581333	0,00024224

3. Overview of proposed all-in reserve prices (4/4)

Storage Exit

Product ->	Year	Quarter	Month	Day	Within-day
	EUR/kWh/h/y	EUR/kWh/h/q	EUR/kWh/h/m	EUR/kWh/h/d	EUR/kWh/h/h
January	0,91929133	0,44003202	0,20905063	0,00827299	0,00034471
February			0,17633771	0,00772646	0,00032195
March			0,14135804	0,00559319	0,00023306
April		0,20398193	0,09735673	0,00398003	0,00016585
May			0,07916988	0,00313378	0,00013058
June			0,06800237	0,00278118	0,00011590
July		0,15988114	0,06499894	0,00256961	0,00010708
August			0,06183682	0,00244619	0,00010193
September			0,06505560	0,00266217	0,00011094
October		0,34264381	0,08725082	0,00345553	0,00014399
November			0,13679811	0,00559319	0,00023306
December			0,18679874	0,00739148	0,00030798

4. NC-TAR agreement: Traceability of entry and exit tariffs

Obligation from NC TAR agreement	Remark
To improve the traceability of the entry and exit tariffs, GTS will, before submitting its tariff proposal to ACM, verbally explain its proposal to market parties	this session
GTS explains how it has applied the Tariff Code	slide 5, 6 & 34-40
GTS shows which reference prices will be proposed	slide 2
GTS makes a comparison with the prices for the previous year	slide 21-22
GTS explains how she determines the proposed forecasted contracted capacity	slide 8-10
GTS explains which reconciliation and corrections it wishes to propose	slide 47-48
GTS shows the distribution of revenues per segment, whereby at least a distinction is made between interconnection points, production points, storages, LNG, local distribution points and industry and between entry and exit	slide 23
GTS will publish the oral explanation (this presentation) on its website	early March 2020

5. Details of reconciliation T-2 and corrections

Reconciliation and corrections	Total *€ mln.*	Link to Method Decision
Purchase costs energy (only QC)	20	Chapter 9.2.1
Revenue-cap regulation	-13	Chapter 9.3
Administrative imbalance	10	Chapter 9.2.4
Over subscription and buy back	-4	Chapter 9.4.3
Auction premium	-1	Chapter 9.4.2
Other corrections	1	
TOTAL (rounded)	**12**	

Reconciliation and corrections	Total *€ mln.*	Link to Tariff Decision
Deferred reconciliation 2018	**17**	Margin nr. 37

6. Details of correction changed x-factor decision

Correction changed method decision	Total *€ mln. (including interest)*
Correction allowed revenue 2017	4
Correction allowed revenue 2018	7
Correction allowed revenue 2019	9
Correction allowed revenue 2020	12
Correction allowed revenue 2021	13
TOTAL (rounded)	**45**