

Explanation GTS Tariff Proposal 2020

6 March 2019



Proposed reference prices 2020

Reference prices	Value (€/kWh/h/y)
Non-storage entry	1,640
Non-storage exit	2,296
Storage entry	0,656
Storage exit	0,918

The average tariff increases by 10% compared to 2019

1. This increase is mainly the result of methodological changes: 9%

- Changed method decision 2017-2021: increase of allowed revenue for the years 2017-2020 by EUR 46 million. This difference must be fully settled in the 2020 tariffs
- Application of the NC TAR decision

2. The effect of declining capacity sales is expected to be limited to a tariff increase of 1%

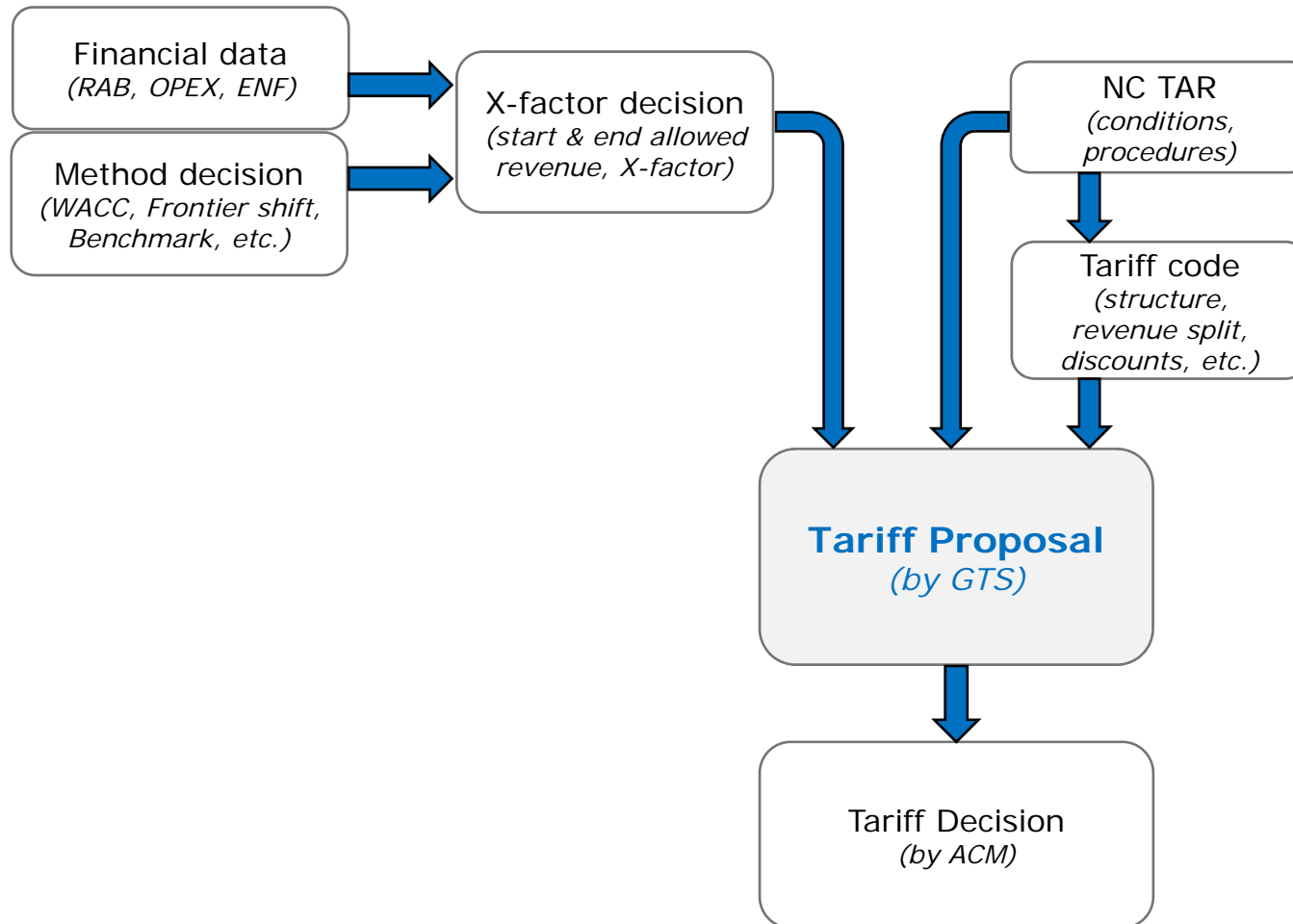
Content

- Context of the tariff proposal
- Reference Price Methodology (RPM): How to determine reference prices
- Input for RPM: Forecasted Contracted Capacity 2020
- Input for RPM: Allowed revenue 2020
- Calculated Reference prices 2020 and graphic views
- Reference price development 2021 and beyond
- Next steps
- Appendix

Content

- Context of the tariff proposal
- Reference Price Methodology (RPM): How to determine reference prices
- Input for RPM: Forecasted Contracted Capacity 2020
- Input for RPM: Allowed revenue 2020
- Calculated Reference prices 2020 and graphic views
- Reference price development 2021 and beyond
- Next steps
- Appendix

Context of the Tariff proposal



Key elements of NC TAR agreement

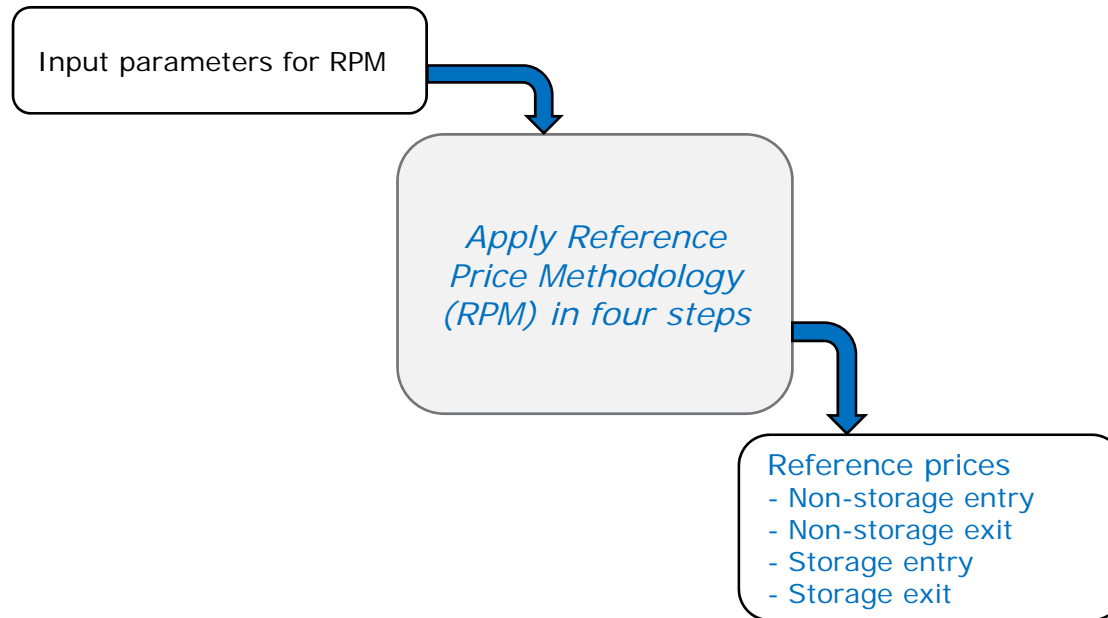
Key elements	NC TAR decision
Services	All-in Transmission service (no different tariffs anymore for transport, quality conversion, balancing and connection)
Reference Price Methodology (RPM)	Postage stamp
Share of allowed revenue received from entry points	40%
Share of allowed revenue received from exit 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 0,01%
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

Content

- Context of the tariff proposal
- [Reference Price Methodology \(RPM\): How to determine reference prices](#)
- Input for RPM: Forecasted Contracted Capacity 2020
- Input for RPM: Allowed revenue 2020
- Calculated Reference prices 2020 and graphic views
- Reference price development 2021 and beyond
- Next steps
- Appendix

How to determine reference prices

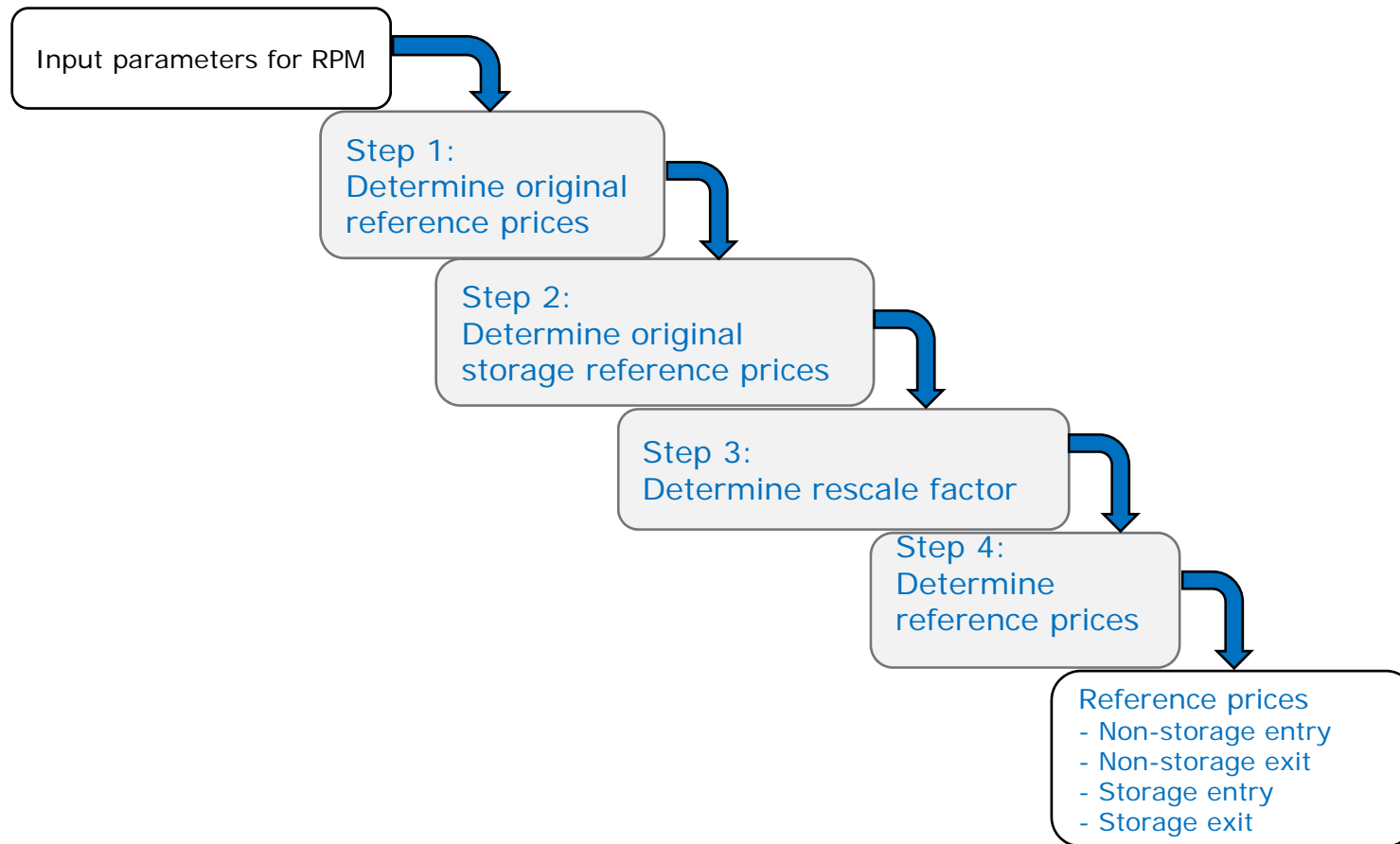
'reference price' means the price for the yearly firm standard capacity product



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		

Reference price methodology (RPM) in four steps



Step 1: Determine Original Reference prices

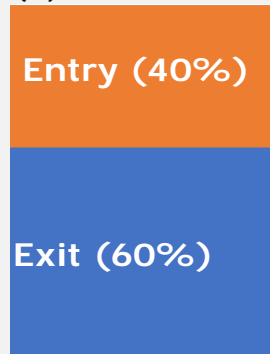
Allowed revenue,
Share of allowed revenue received from entry points,
Share of allowed revenue received from exit points,
Forecasted contracted entry capacity,
Forecasted contracted exit capacity

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
(€)

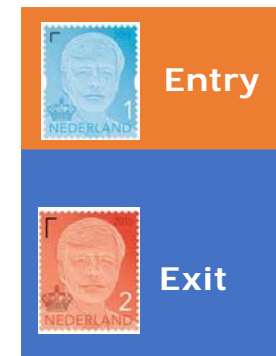


Divided by

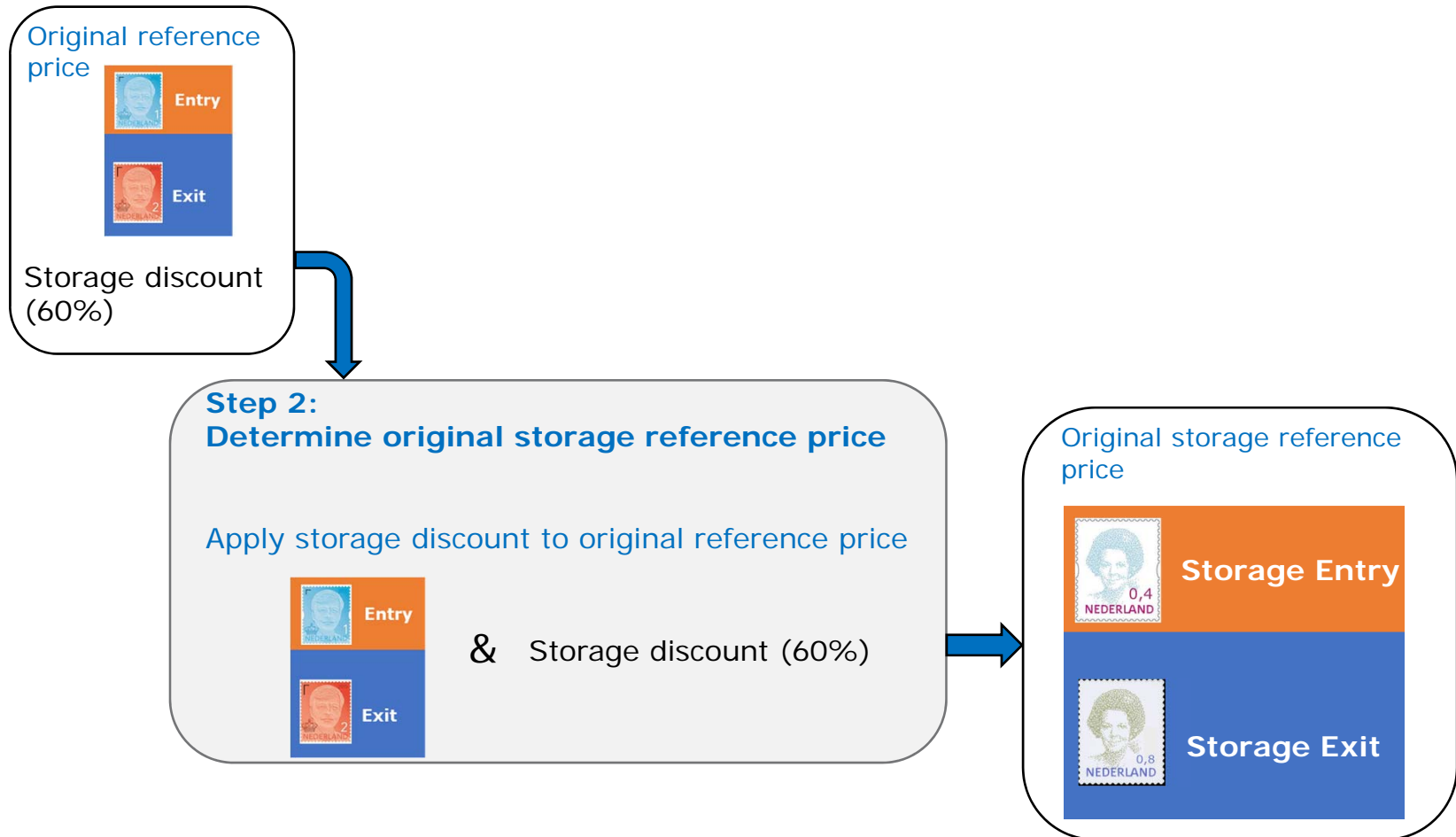
Forecasted contracted
Capacity (kWh/h)



Original reference price

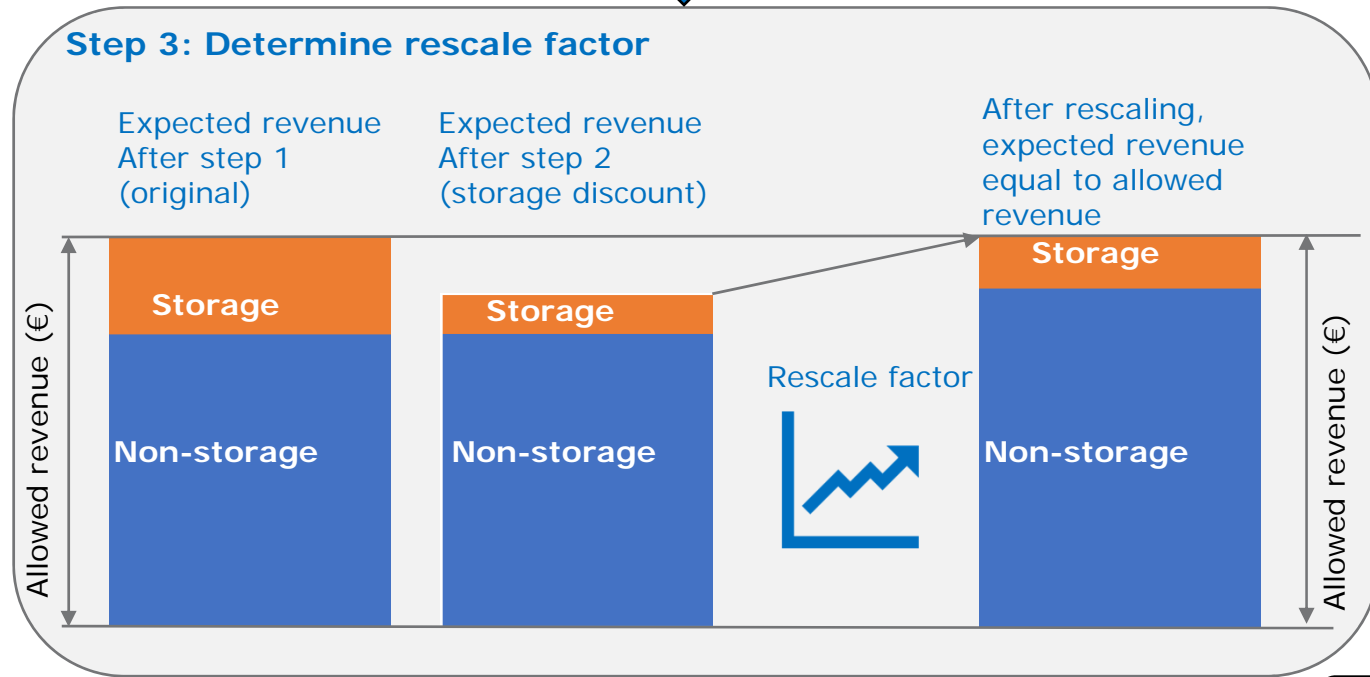


Step 2: Determine original storage reference price



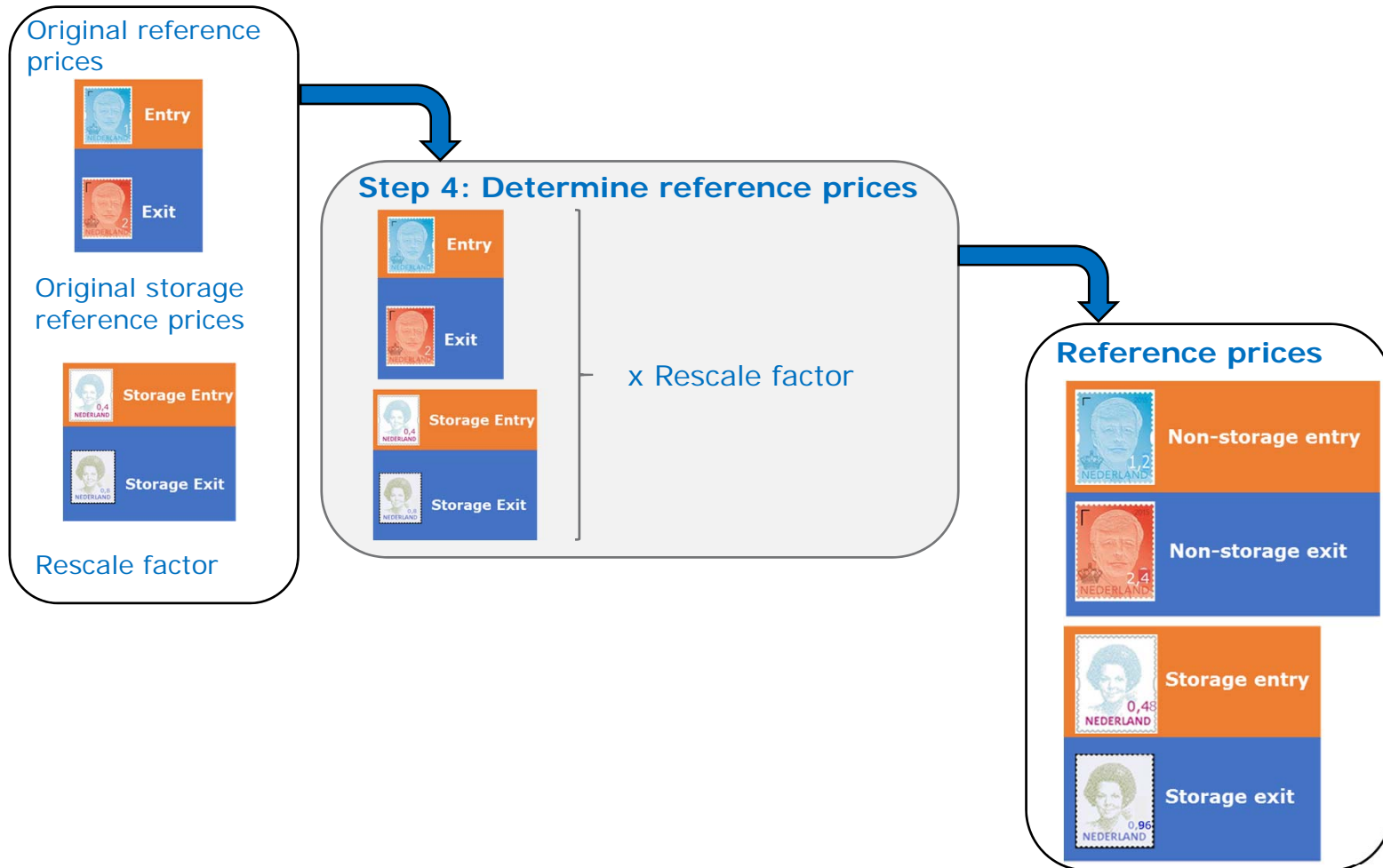
Step 3: Determine rescale factor

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



Rescale factor

Step 4: Determine reference prices



Content

- Context of the tariff proposal
- Reference Price Methodology (RPM): How to determine reference prices
- **Input for RPM: Forecasted Contracted Capacity 2020**
- Input for RPM: Allowed revenue 2020
- Calculated Reference prices 2020 and graphic views
- Reference price development 2021 and beyond
- Next steps
- Appendix

Forecasted Contracted Capacity 2020

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'

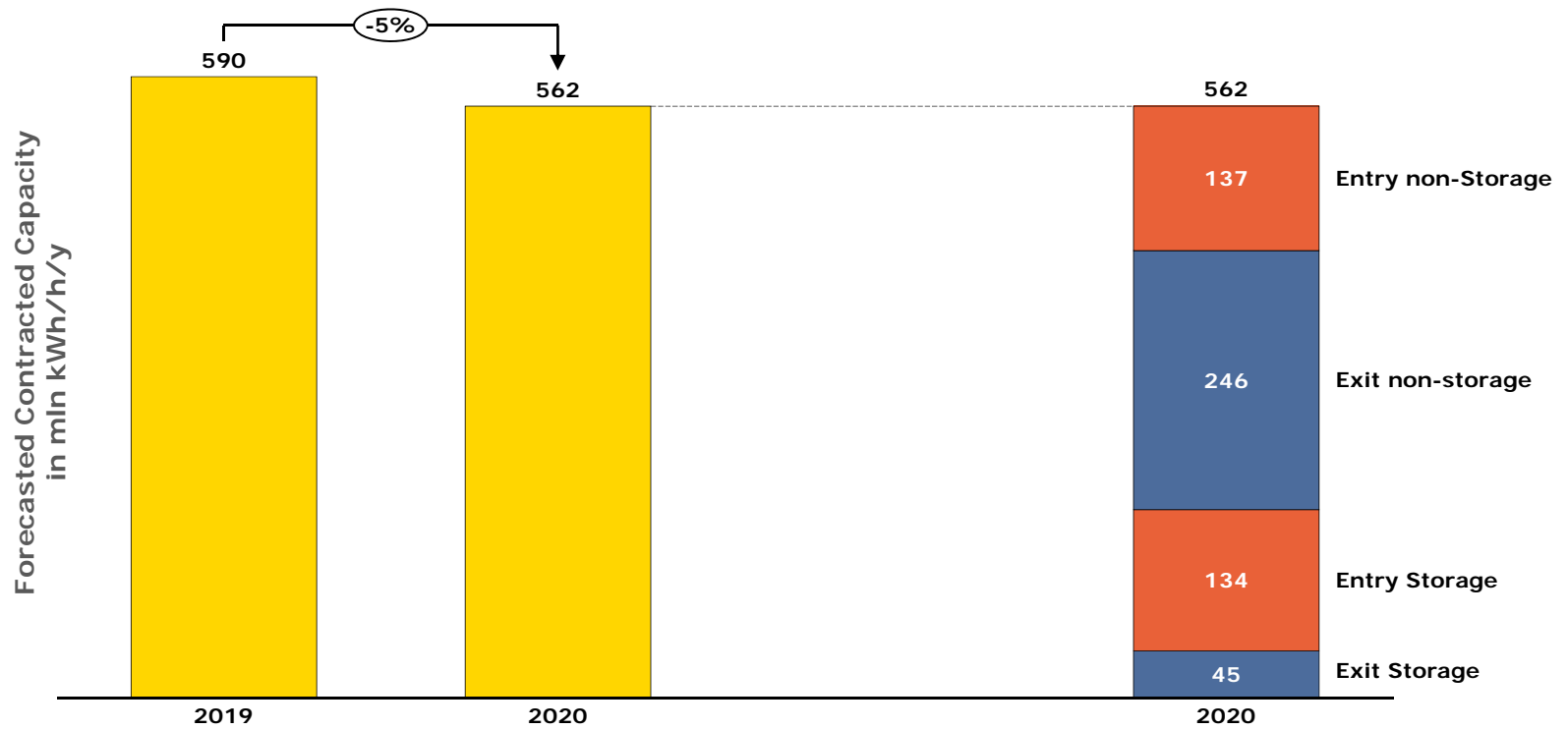
How do we forecast the FCC?

- 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 2019 versus 2020



Explanation differences between 2019 and 2020

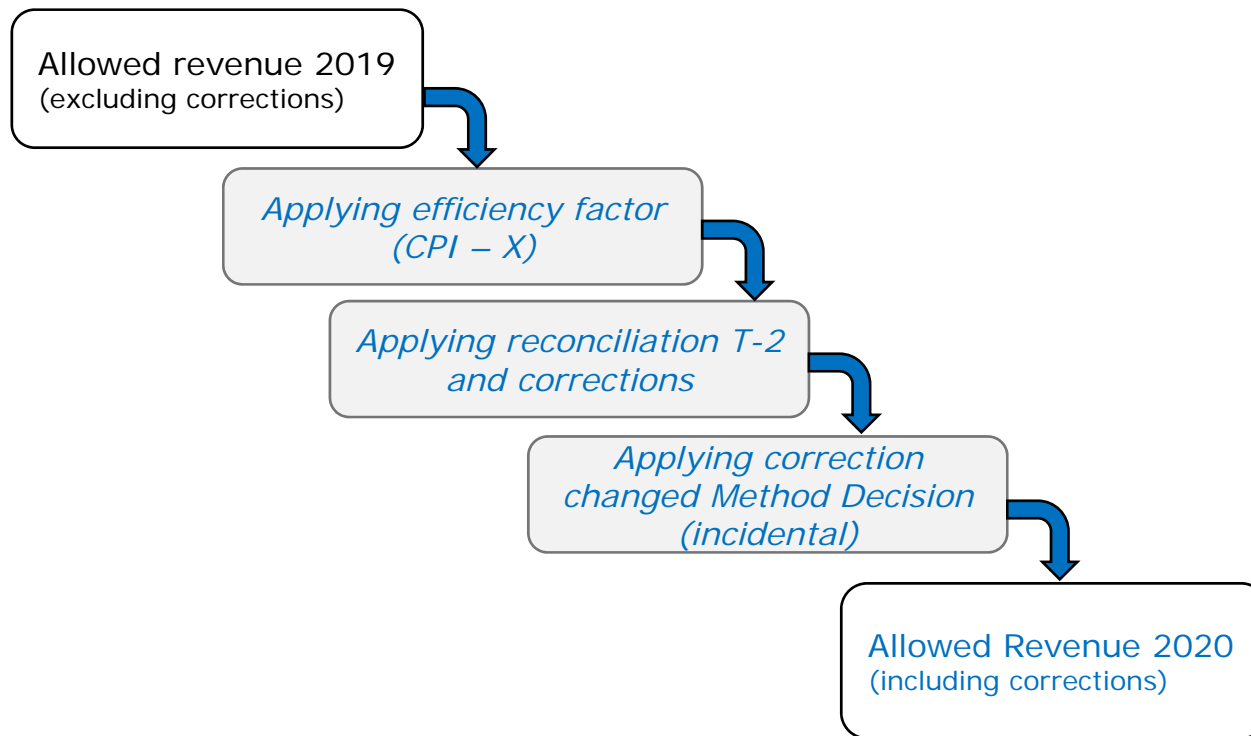
- Methodology change
 - NC TAR decision imposes other multipliers and seasonal factors:
 - Profiled capacities generate less FCC
 - Short term winter products generate less FCC
 - Expected decrease: 4%

- 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
 - Expected decrease: 1%

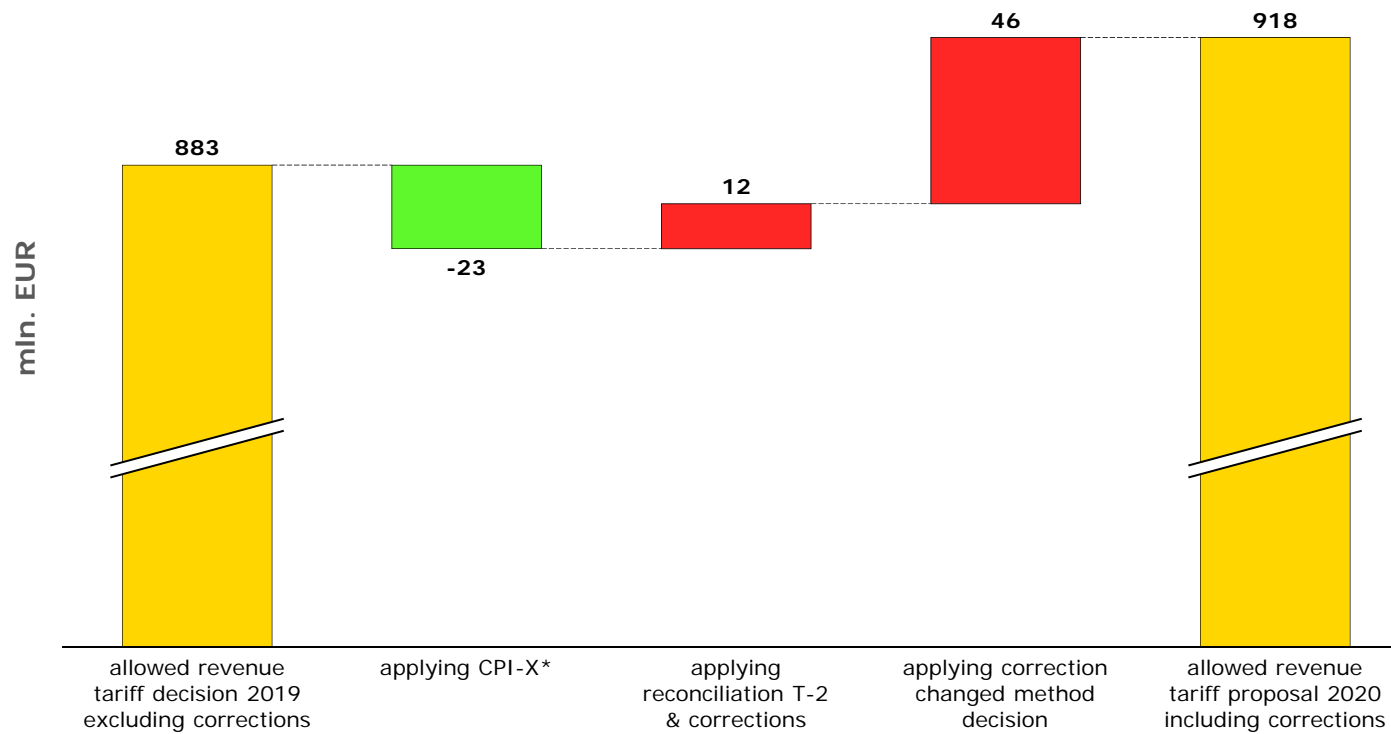
Content

- Context of the tariff proposal
- Reference Price Methodology (RPM): How to determine reference prices
- Input for RPM: Forecasted Contracted Capacity 2020
- [Input for RPM: Allowed revenue 2020](#)
- Calculated Reference prices 2020 and graphic views
- Reference price development 2021 and beyond
- Next steps
- Appendix

Determination of allowed revenue 2020 (1/2)



Determination of allowed revenue 2020 (2/2)



*Based on an estimated CPI of 2,0%. The final CPI will be available in April 2019 and will be applied by ACM in the tariff decision.

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	-17	Chapter 9.3
Administrative imbalance	12	Chapter 9.2.4
Over subscription and buy back	-3	Chapter 9.4.3
Auction premium	-1	Chapter 9.4.2
Other corrections	1	
TOTAL (rounded)	12	

Details of correction changed method decision

Correction changed method decision	Total € mln. (including interest)
Correction allowed revenue 2017	14
Correction allowed revenue 2018	12
Correction allowed revenue 2019	10
Correction allowed revenue 2020	9
TOTAL (rounded)	46

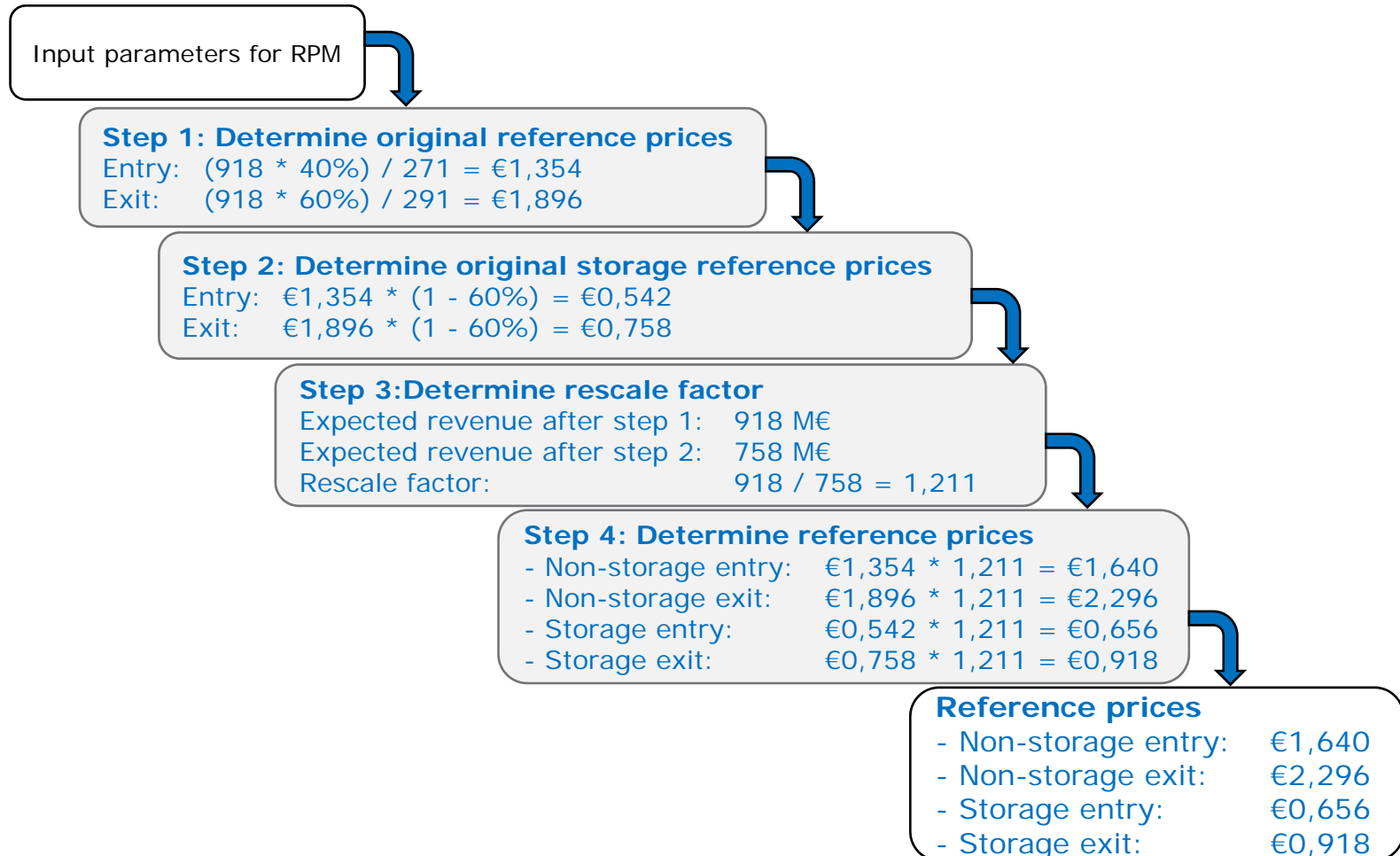
Content

- Context of the tariff proposal
- Reference Price Methodology (RPM): How to determine reference prices
- Input for RPM: Forecasted Contracted Capacity 2020
- Input for RPM: Allowed revenue 2020
- [Calculated Reference prices 2020 and graphic views](#)
- Reference price development 2021 and beyond
- Next steps
- Appendix

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	918M €	tariff decision by ACM, yearly
Forecasted contracted entry capacity	271M kwh/h/y	
Forecasted contracted exit capacity	291M kwh/h/y	
Forecasted contracted entry Storage capacity	134M kwh/h/y	
Forecasted contracted exit Storage capacity	45M kwh/h/y	

Reference price calculation in four steps



Proposed reference prices 2020 versus 2019

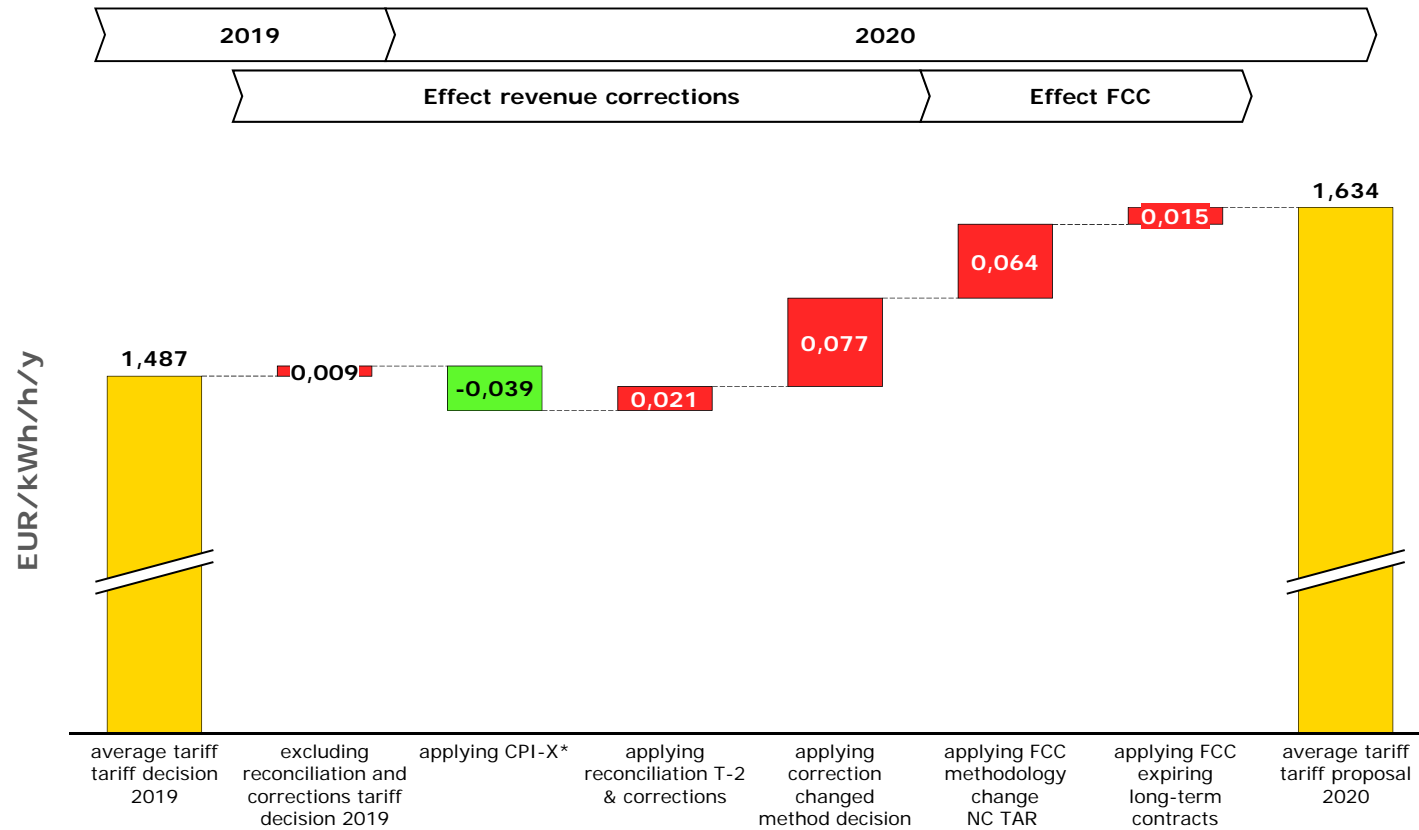
Reference prices	2020 Proposal GTS (€/kWh/h/y)	2019 Decision ACM (€/kWh/h/y)	
		Min*	Max*
Non-storage entry	1,640	0,998	2,109
Non-storage exit	2,296	0,525	3,893**
Storage entry	0,656	0,959	1,317
Storage exit	0,918	0,460	1,136

Average tariff	2020 (€/kWh/h/y)	2019 (€/kWh/h/y)	Delta
	1,634	1,487	10%

* In current situation individual tariffs per network point and different components: transport, quality conversion, balancing, connection. Storage discount increased from 25% to 60%

** Some small local distribution points have a higher all-in tariff due to the uniform yearly system connection fee, but these are outliers, highest is 8,373

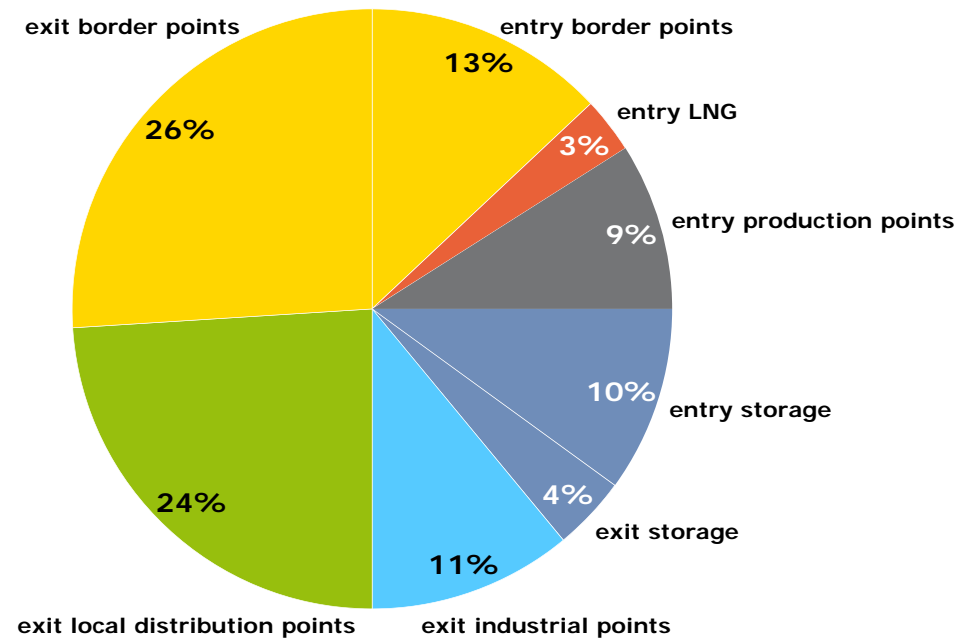
Explanation average tariff increase



*Based on an estimated CPI of 2,0%. The final CPI will be available in April 2019 and will be applied by ACM in the tariff decision.

Revenue distribution per segment in 2020

Segment	Forecasted contracted capacity (Million kWh/h/y)	Expected revenue (M€)
Entry border points	70	116
Entry LNG	17	27
Entry production points	50	83
Entry storage	134	88
Exit storage	45	41
Exit industrial points	46	105
Exit local distribution points	97	223
Exit border points	103	236
Total (all numbers rounded)	562	918



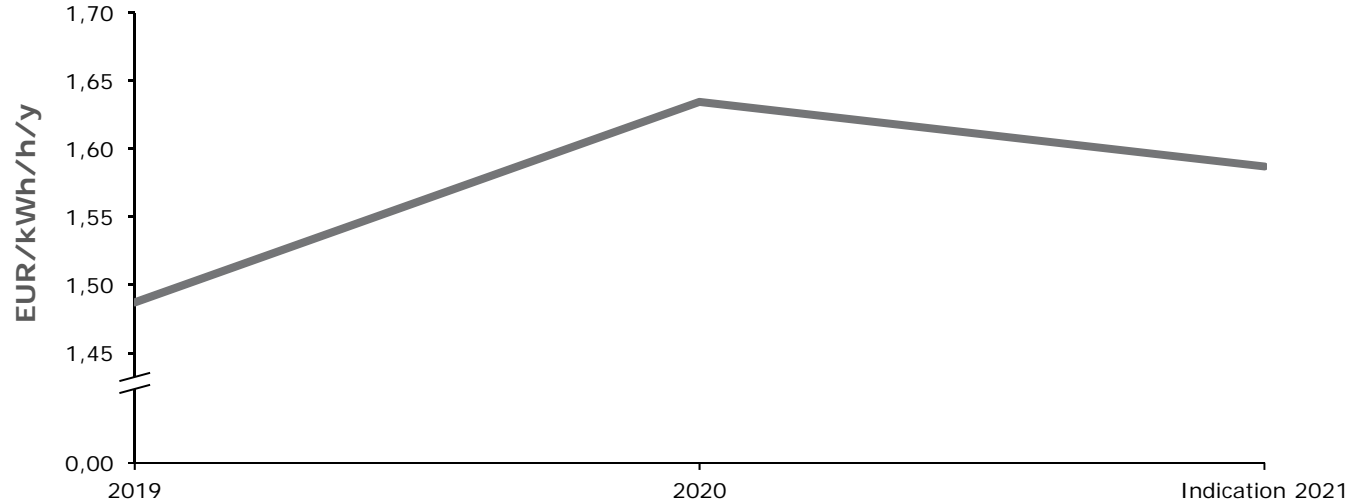
Content

- Context of the tariff proposal
- Reference Price Methodology (RPM): How to determine reference prices
- Input for RPM: Forecasted Contracted Capacity 2020
- Input for RPM: Allowed revenue 2020
- Calculated Reference prices 2020 and graphic views
- Reference price development 2021 and beyond
- Next steps
- Appendix

Indication average tariff 2021

Assumptions

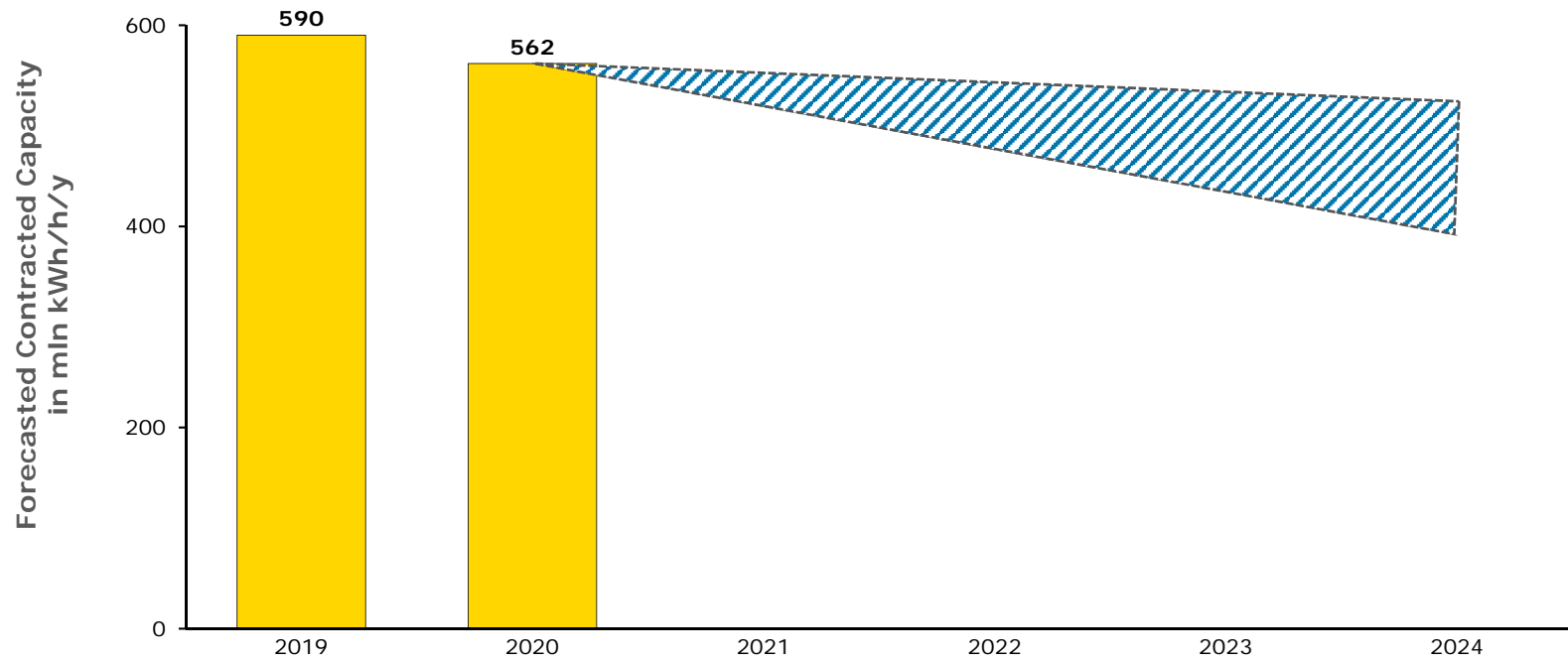
- Forecasted contracted capacity: 533 mln. kWh/h/y
- Current forecast allowed revenue 2021: € 846 mln.
 - Expectation CPI: 2%
 - Expectation reconciliation and corrections: € 0 mln.



Reference price development 2021 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

- Context of the tariff proposal
- Reference Price Methodology (RPM): How to determine reference prices
- Input for RPM: Forecasted Contracted Capacity 2020
- Input for RPM: Allowed revenue 2020
- Calculated Reference prices 2020 and graphic views
- Reference price development 2021 and beyond
- [Next steps](#)
- Appendix

Next steps

Begin March 2019:

- GTS will send Tariff proposal 2020 to ACM (4 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

Mid May 2019:

- ACM determines final tariffs in Tariff decision 2020 and publishes this on ACM website
- ACM will explain Tariff decision to market parties

Begin June 2019:

- GTS will process Tariffs 2020 in GTS ICT systems
- ACM will publish according NC TAR publication obligations
- GTS will determine entry/exit network points and publishes this in TSC at GTS website

1 jan 2020:

- Start of NC TAR based 2020 tariffs

Content

- Context of the tariff proposal
- Reference Price Methodology (RPM): How to determine reference prices
- Input for RPM: Forecasted Contracted Capacity 2020
- Input for RPM: Allowed revenue 2020
- Calculated Reference prices 2020 and graphic views
- Reference price development 2021 and beyond
- Next steps
- [Appendix](#)

Appendix

1. How to determine reserve prices
2. Overview of proposed reserve prices
3. NC-TAR agreement: Traceability of entry and exit tariffs

How to determine reserve prices

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



Overview of proposed 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	0,792	0,372	0,015	0,0006
February		0,325	0,014	0,0006
March		0,251	0,010	0,0004
April	0,363	0,173	0,007	0,0003
May		0,141	0,006	0,0002
June		0,121	0,005	0,0002
July	0,284	0,116	0,005	0,0002
August		0,110	0,004	0,0002
September		0,116	0,005	0,0002
October	0,610	0,155	0,006	0,0003
November		0,243	0,010	0,0004
December		0,332	0,013	0,0005

1,640

Overview of proposed 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	1,108	0,521	0,021	0,0009
February		0,455	0,019	0,0008
March		0,352	0,014	0,0006
April	0,508	0,242	0,010	0,0004
May		0,197	0,008	0,0003
June		0,169	0,007	0,0003
July	0,398	0,162	0,006	0,0003
August		0,154	0,006	0,0003
September		0,162	0,007	0,0003
October	0,853	0,217	0,009	0,0004
November		0,341	0,014	0,0006
December		0,465	0,018	0,0008

2,296

Overview of proposed 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	0,317	0,149	0,006	0,0002
February		0,130	0,005	0,0002
March		0,101	0,004	0,0002
April	0,145	0,069	0,003	0,0001
May		0,056	0,002	0,0001
June		0,048	0,002	0,0001
July	0,114	0,046	0,002	0,0001
August		0,044	0,002	0,0001
September		0,046	0,002	0,0001
October	0,244	0,062	0,002	0,0001
November		0,097	0,004	0,0002
December		0,133	0,005	0,0002

Overview of proposed 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	
0,918	0,443	January	0,208	0,008	0,0003
		February	0,182	0,008	0,0003
		March	0,141	0,006	0,0002
	0,203	April	0,097	0,004	0,0002
		May	0,079	0,003	0,0001
		June	0,068	0,003	0,0001
	0,159	July	0,065	0,003	0,0001
		August	0,062	0,002	0,0001
	September	0,065	0,003	0,0001	
	0,341	October	0,087	0,003	0,0001
		November	0,136	0,006	0,0002
		December	0,186	0,007	0,0003

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 5-14
GTS shows which reference prices will be proposed	slide 2
GTS makes a comparison with the prices for the previous year	slide 27-28
GTS explains how she determines the proposed forecasted contracted capacity	slide 16-18
GTS explains which reconciliation and corrections it wishes to propose	slide 20-23
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 29
GTS will publish the oral explanation (this presentation) on its website	begin march 2019