

# ATC Extraction Results

Nordic RCC

May 2, 2024

# Bidding zone lock-in statistics

An area operates at maximum export when the sum of ATC on all exporting directions of that area is less than 1MW.

An area operates at maximum import when the sum of ATC on all importing directions of that area is less than 1MW.

An area operates in lock-in if during the same MTU it is operating at both maximum export and maximum import.

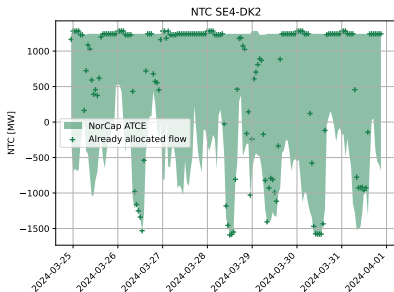
Bidding zone	#MTUs at max Export	#MTUs at max Import	#MTUs at lock-in
DK1	0	0	0
DK2	0	0	0
FI	0	1	0
NO1	4	4	0
NO2	0	6	0
NO3	4	8	0
NO4	13	9	0
NO5	0	18	0
SE1	18	0	0
SE2	1	0	0
SE3	5	0	0
SE4	0	0	0

# Border lock-in statistics

A bidding zone border is operating in a lock-in situation, if at a given MTU, the ATC of the bidding zone border is smaller than 1MW in both forward and reverse trading direction.

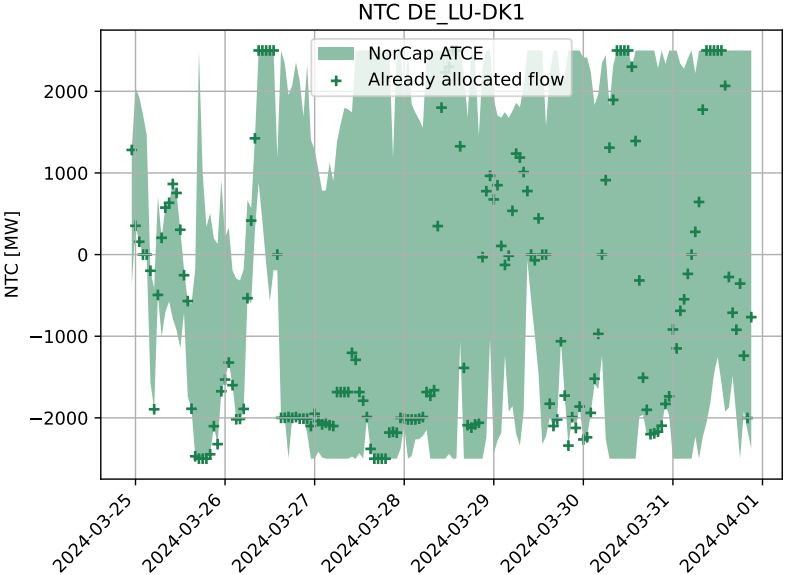
Border	#MTUs at lock-in
DK1-SE3	21
SE3-DK1	21
FI-SE3	8
SE3-FI	8
NO1-NO5	6
NO5-NO1	6
NO4-SE1	1
SE1-NO4	1

# Border NTC plots - Reader's guide

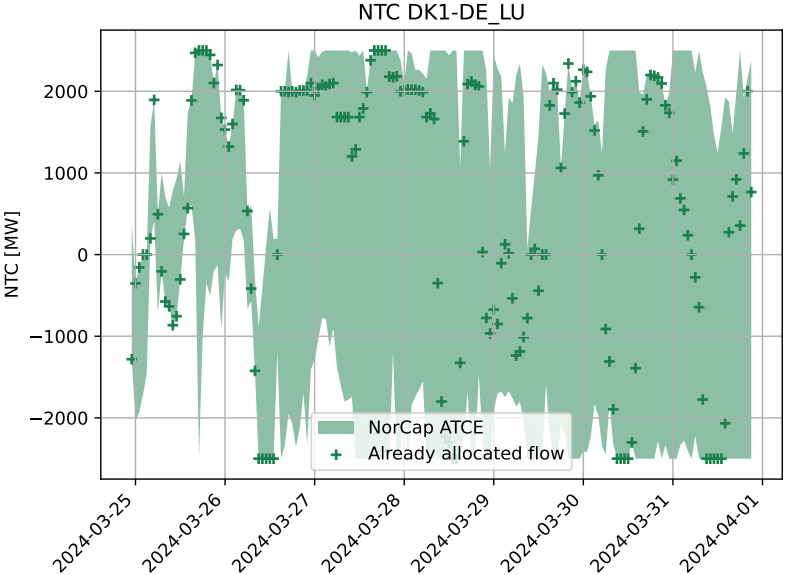


The colored area represents the possible exchange on this border and direction. The cross marks the simulated day ahead market coupling flows. Any colored area above the cross, means that intraday market will be able to increase exchange over the day ahead market coupling flows. Any colored area below the cross means that the intraday market will be able to trade against the day ahead market.

# DE\_LU-DK1

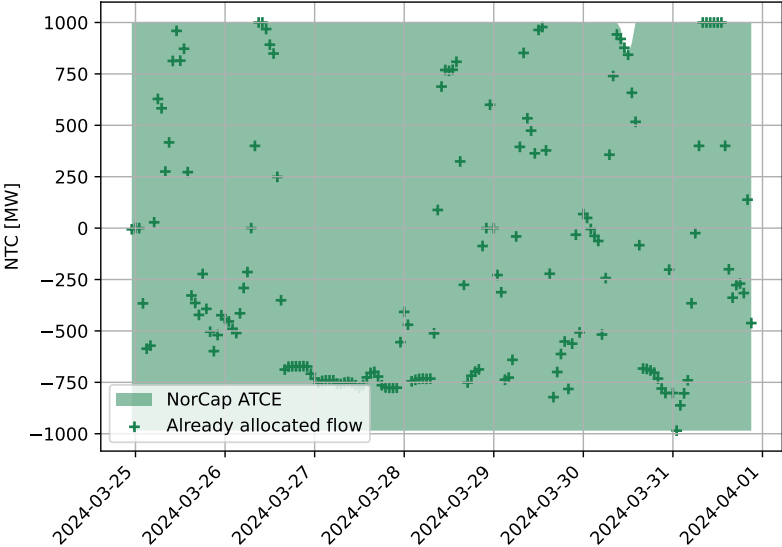


# DK1-DE\_LU



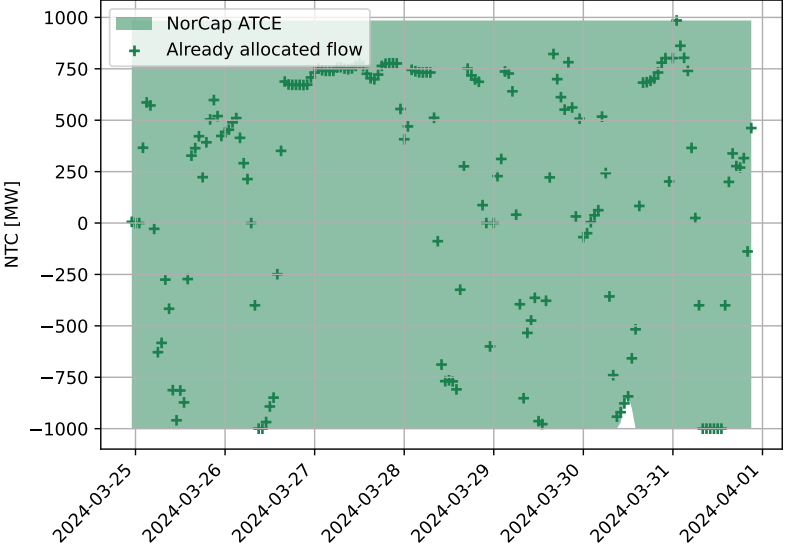
# DE\_LU-DK2

NTC DE\_LU-DK2



# DK2-DE\_LU

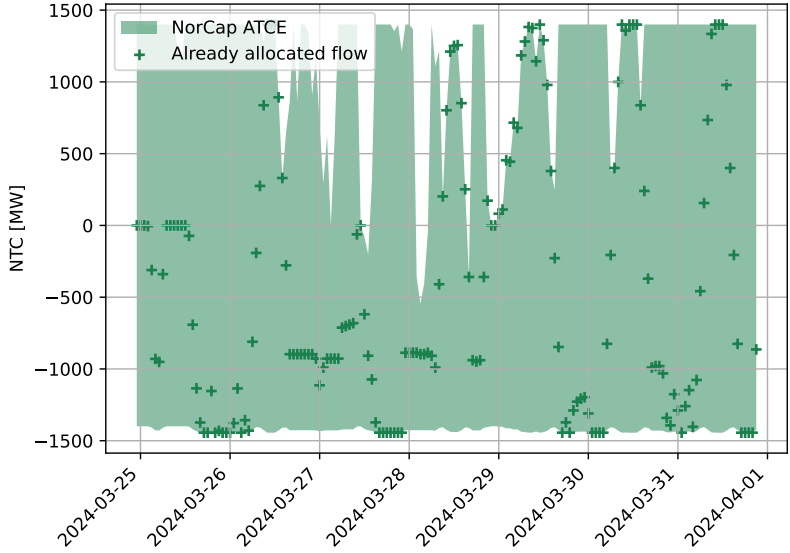
NTC DK2-DE\_LU



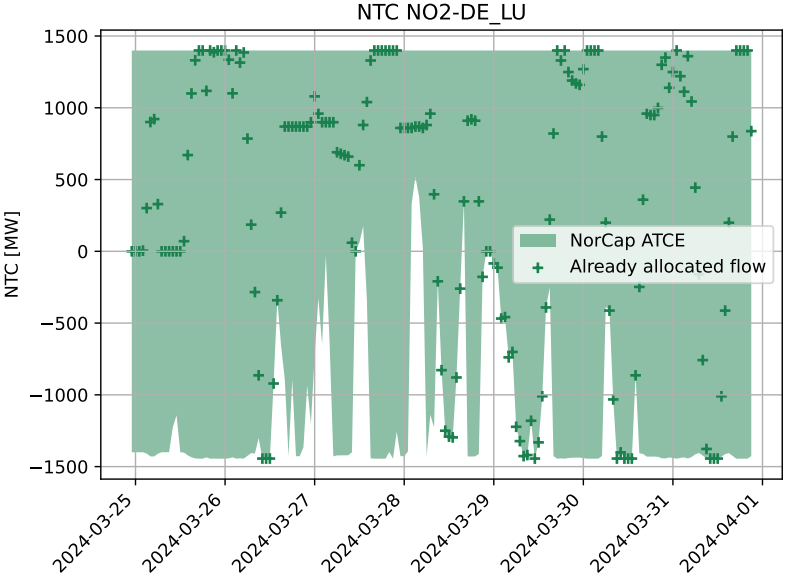


# DE\_LU-NO2

NTC DE\_LU-NO2

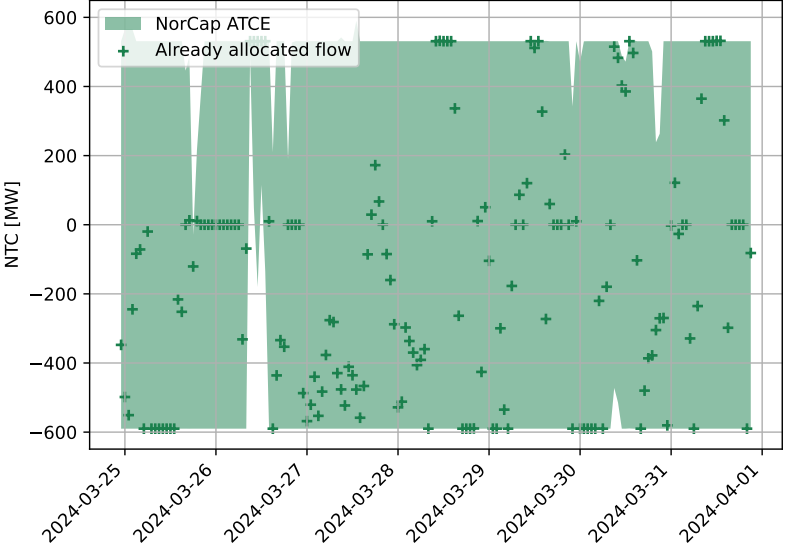


# NO2-DE\_LU

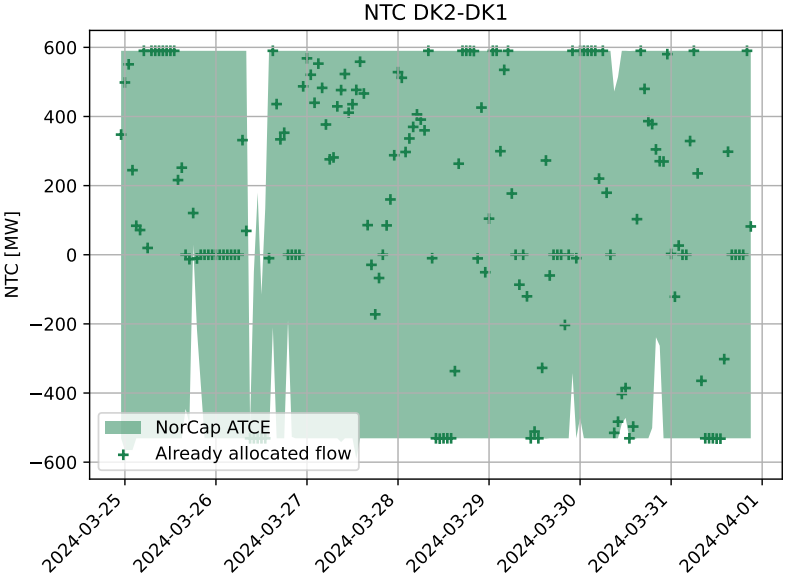


# DK1-DK2

## NTC DK1-DK2

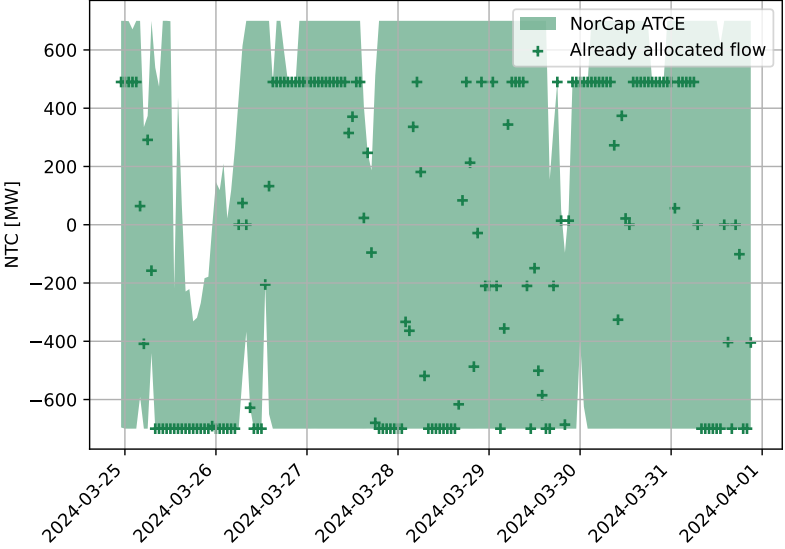


# DK2-DK1

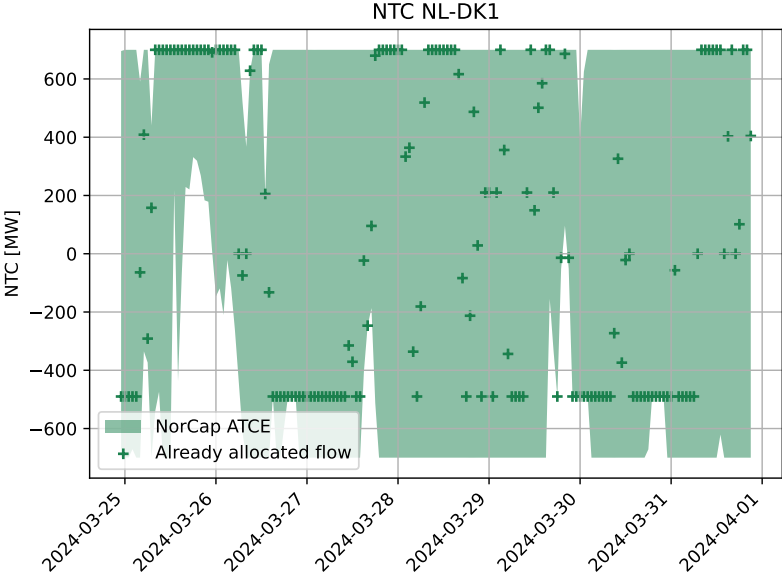


# DK1-NL

## NTC DK1-NL

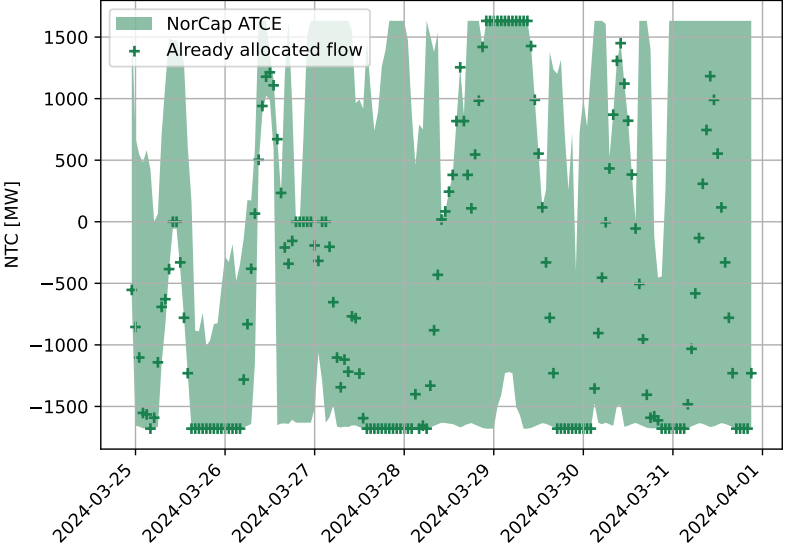


# NL-DK1



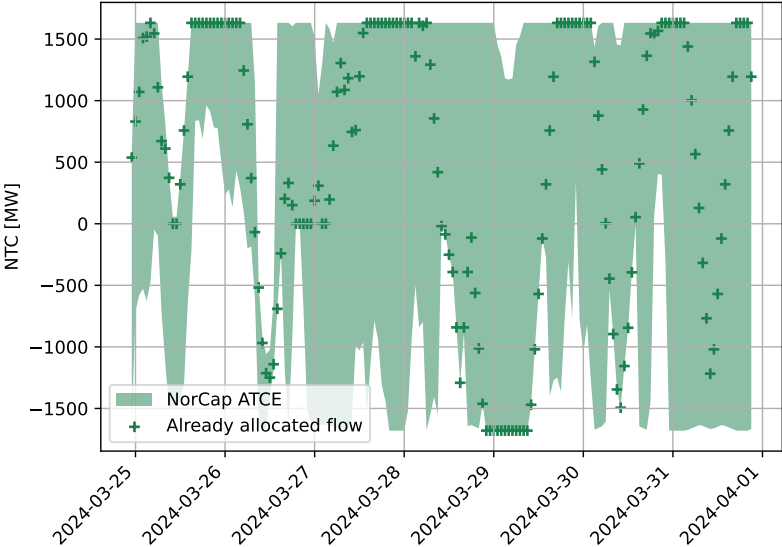
# DK1-NO2

NTC DK1-NO2



# NO2-DK1

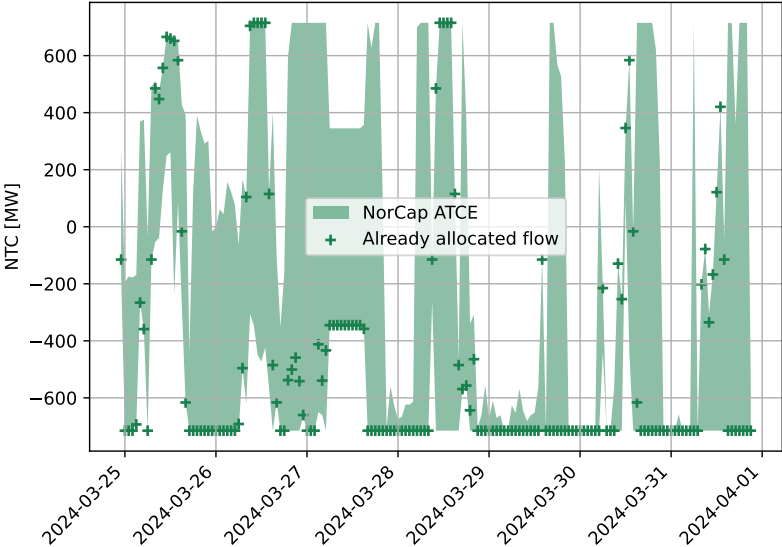
## NTC NO2-DK1





# DK1-SE3

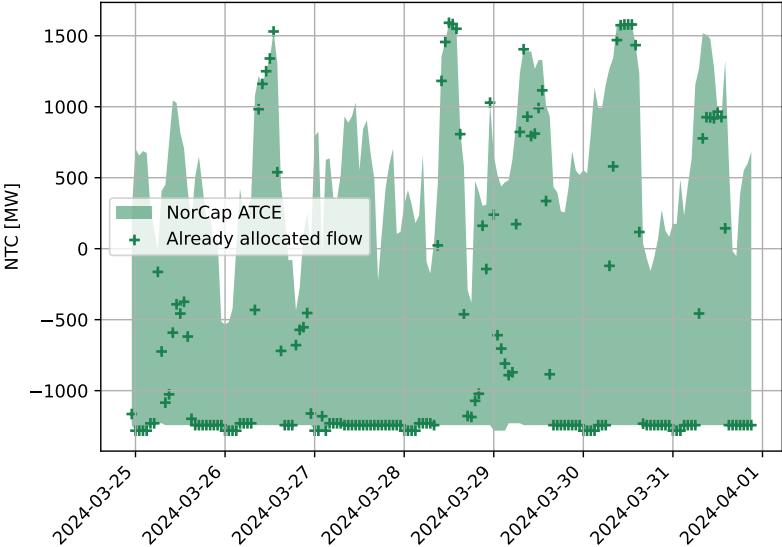
## NTC DK1-SE3





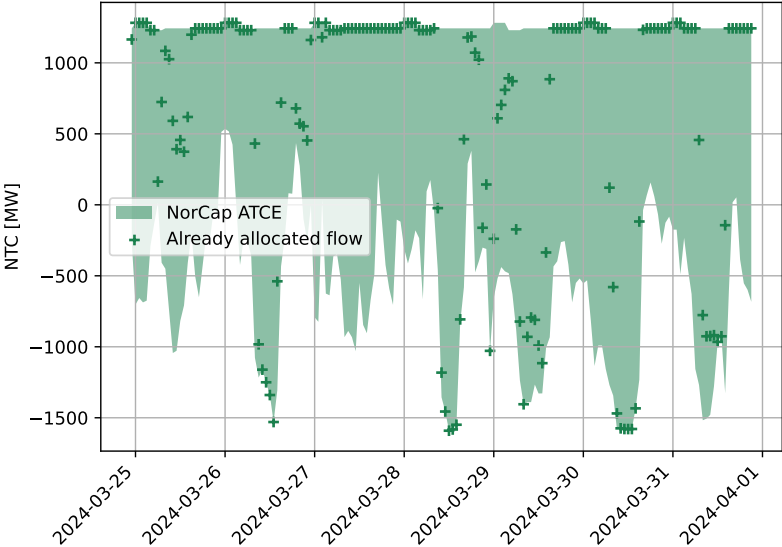
# DK2-SE4

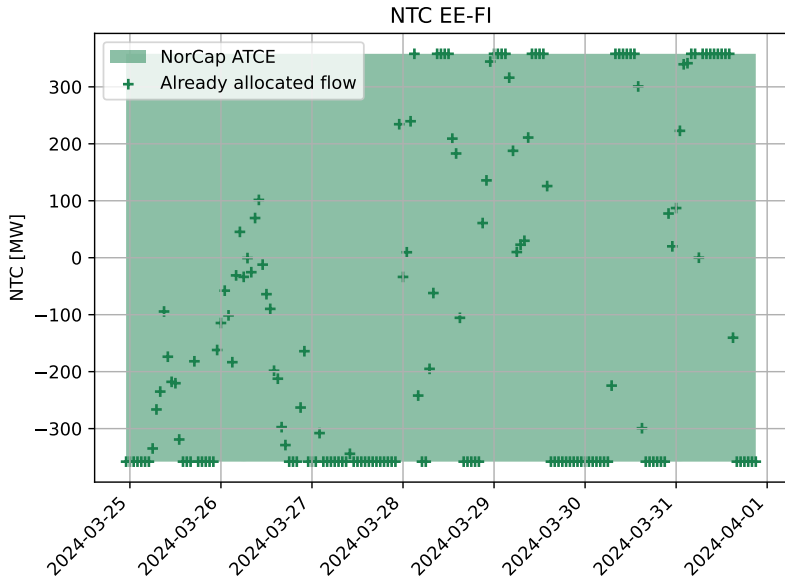
## NTC DK2-SE4



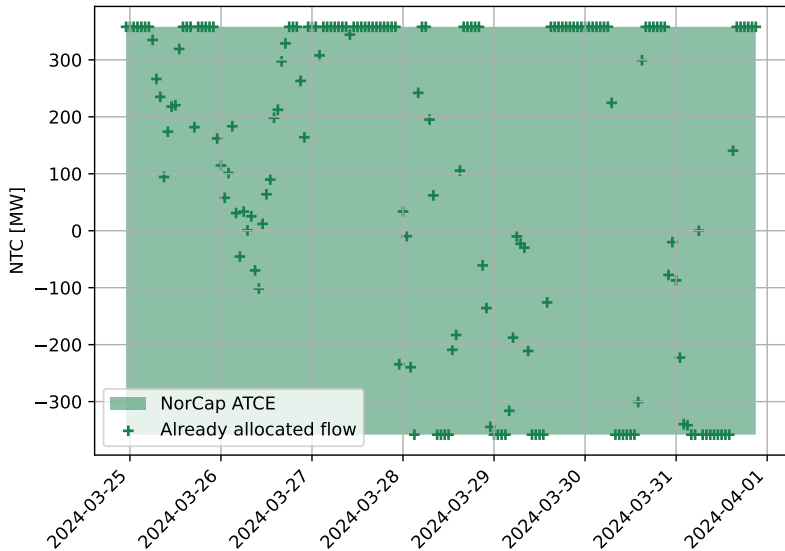
# SE4-DK2

## NTC SE4-DK2

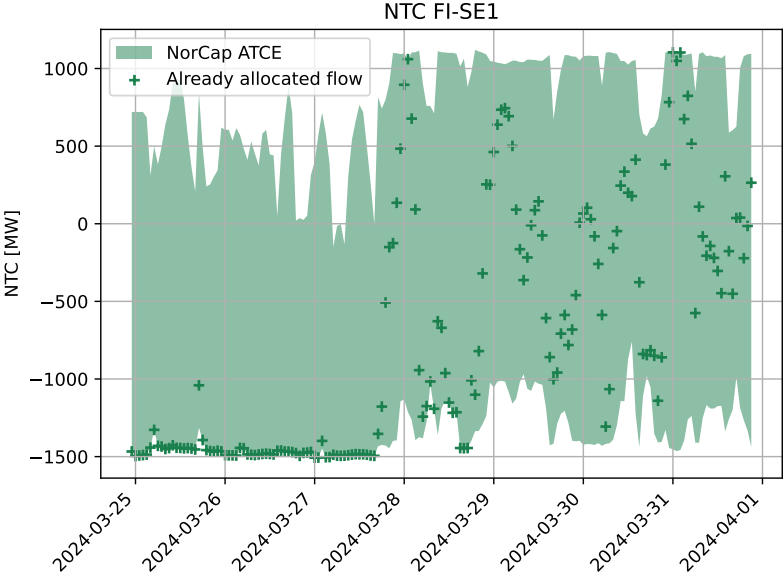




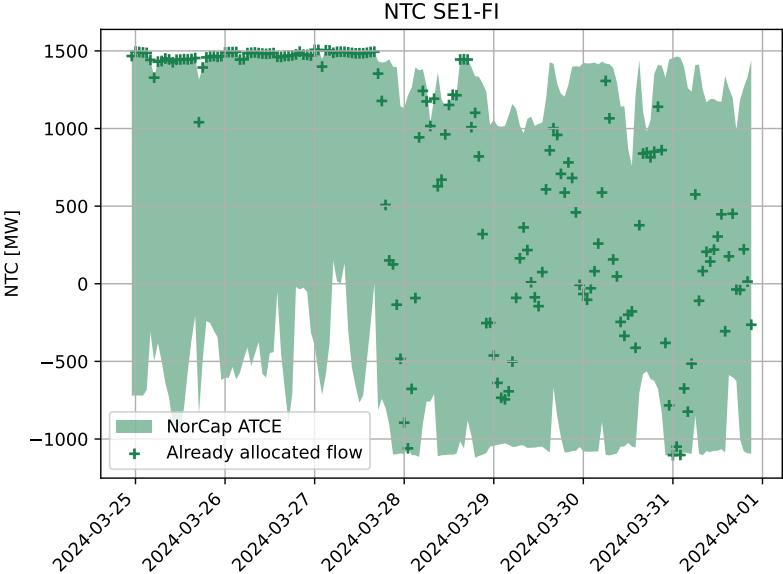
## NTC FI-EE



# FI-SE1



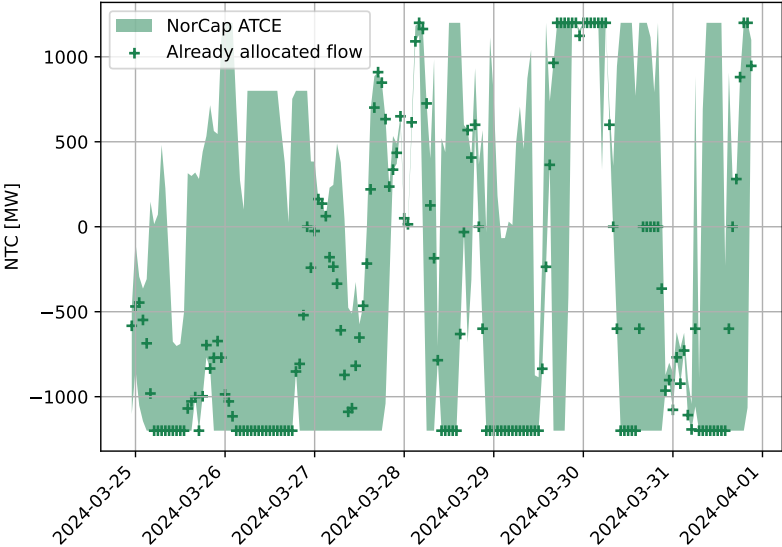
# SE1-FI





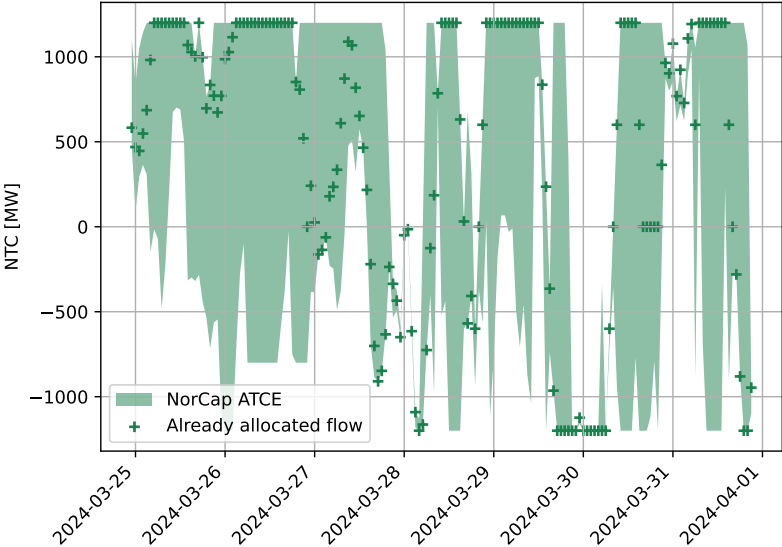
# FI-SE3

## NTC FI-SE3



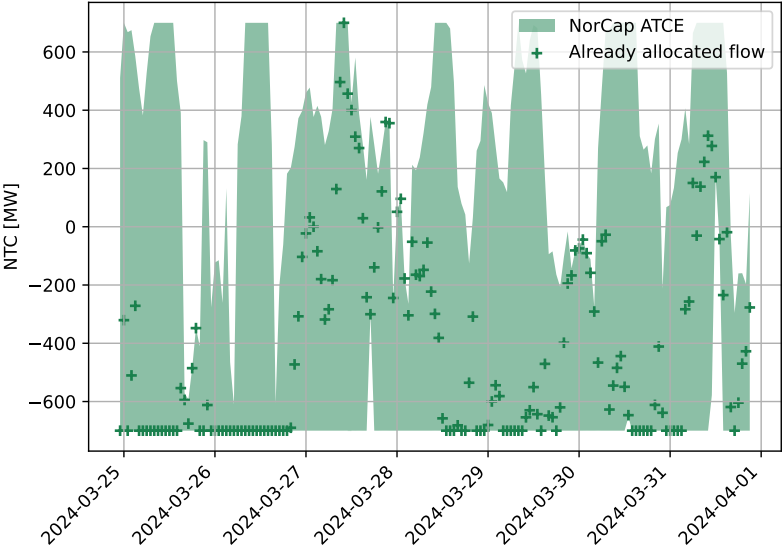
# SE3-FI

### NTC SE3-FI

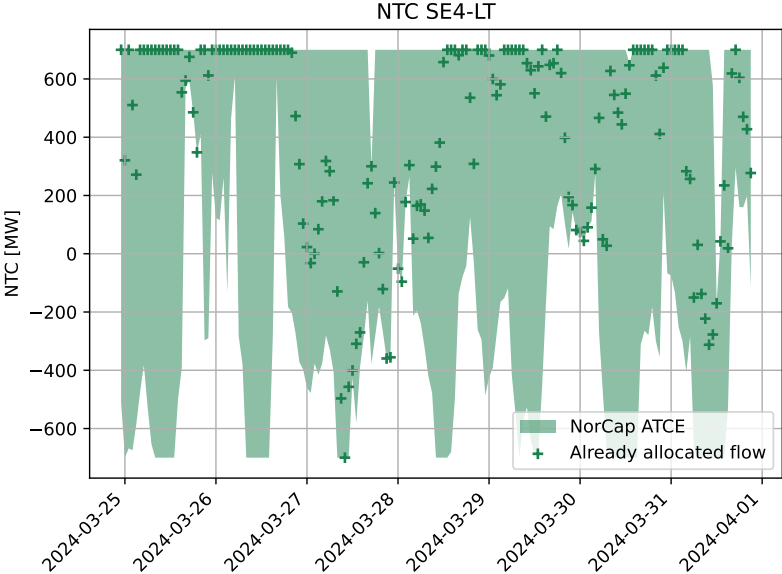


# LT-SE4

## NTC LT-SE4

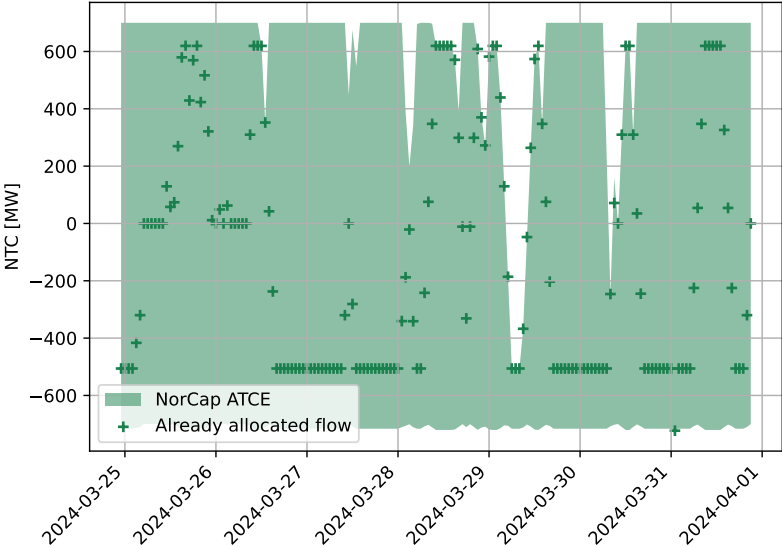


# SE4-LT



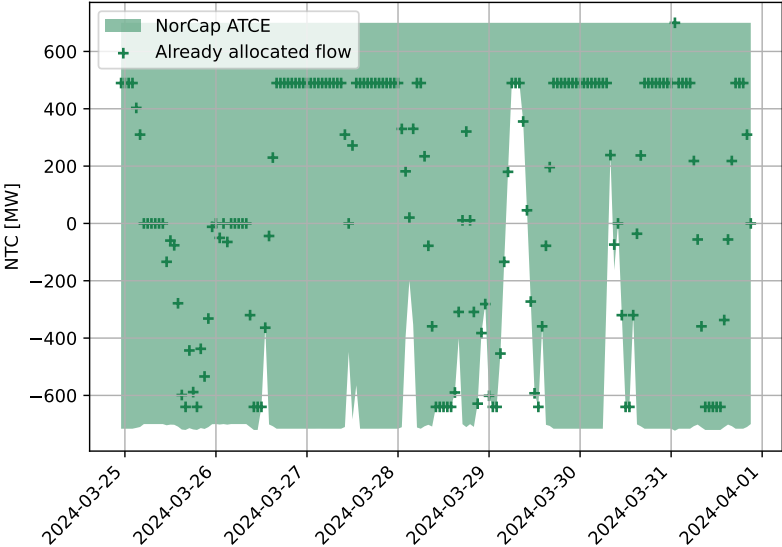
# NL-NO2

## NTC NL-NO2



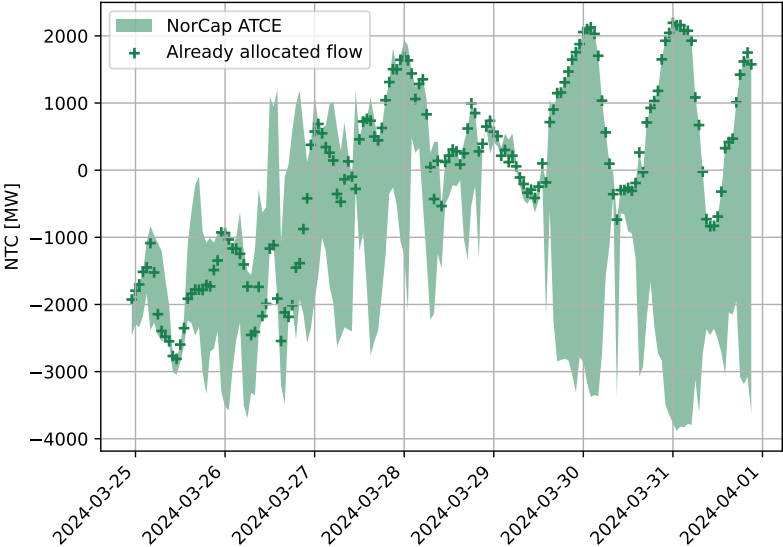
# NO2-NL

## NTC NO2-NL



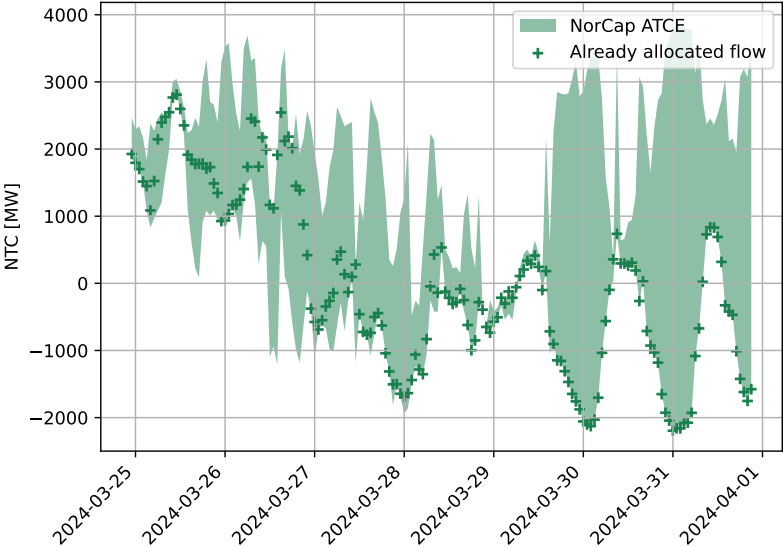
# NO1-NO2

NTC NO1-NO2



# NO2-NO1

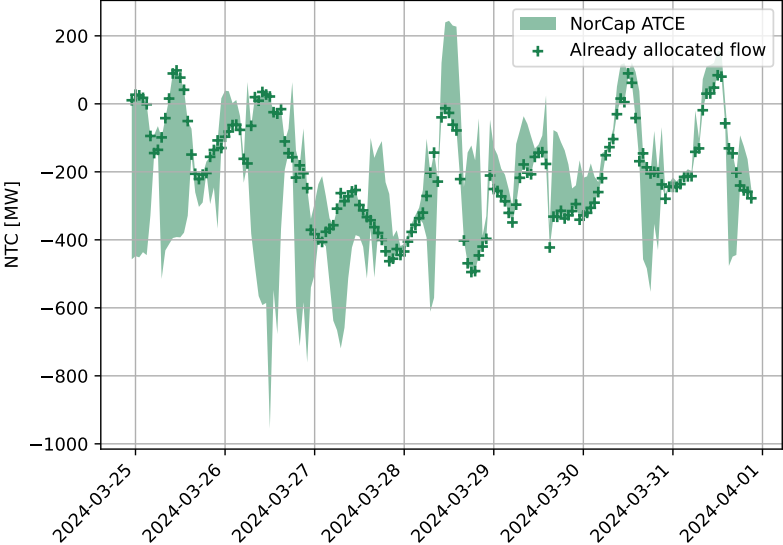
## NTC NO2-NO1





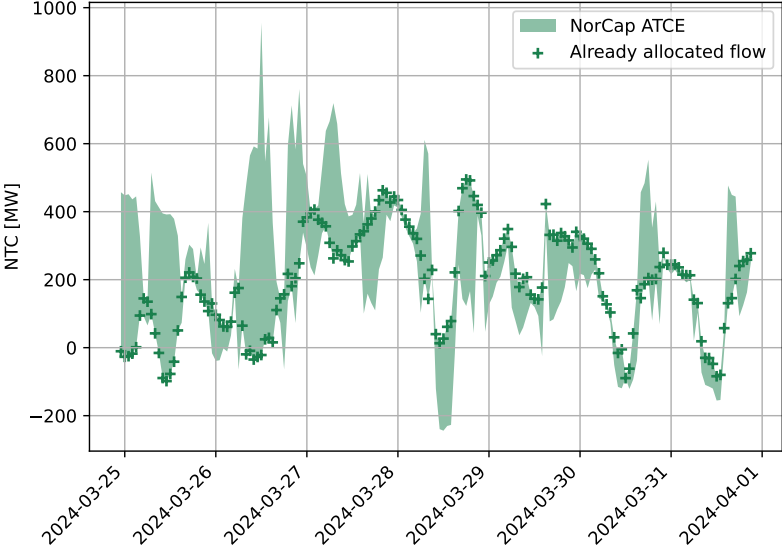
# NO1-NO3

### NTC NO1-NO3



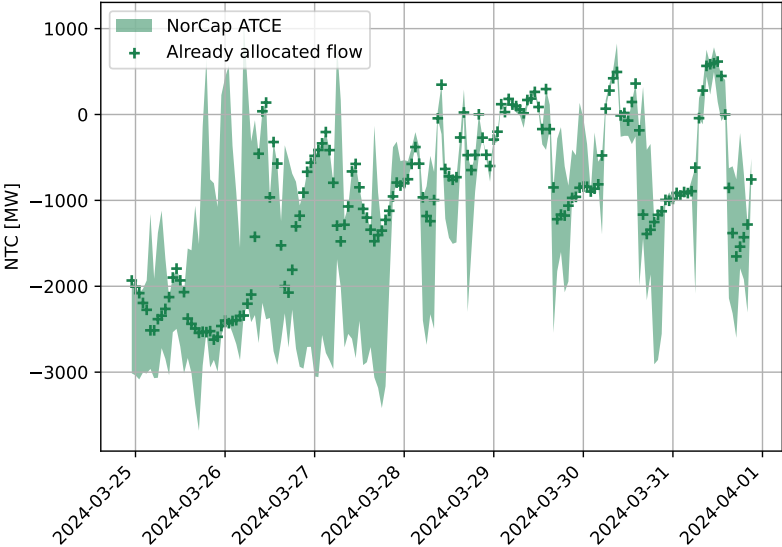
# NO3-NO1

## NTC NO3-NO1



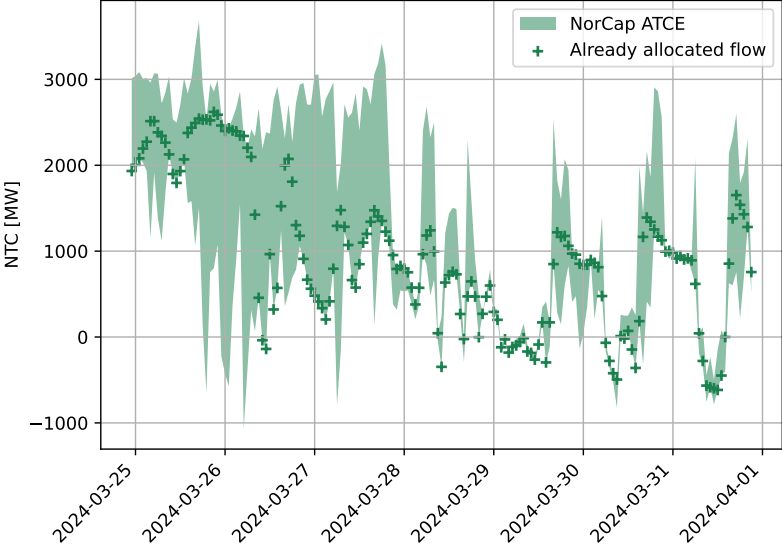
# NO1-NO5

## NTC NO1-NO5



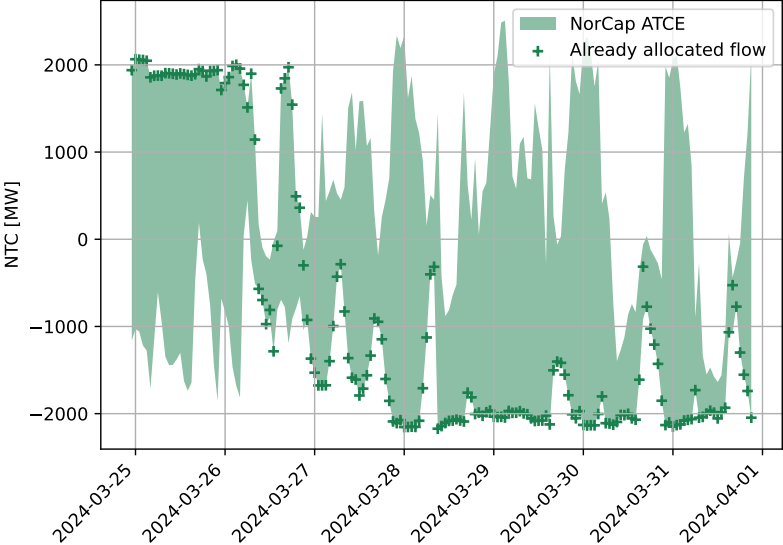
# NO5-NO1

### NTC NO5-NO1



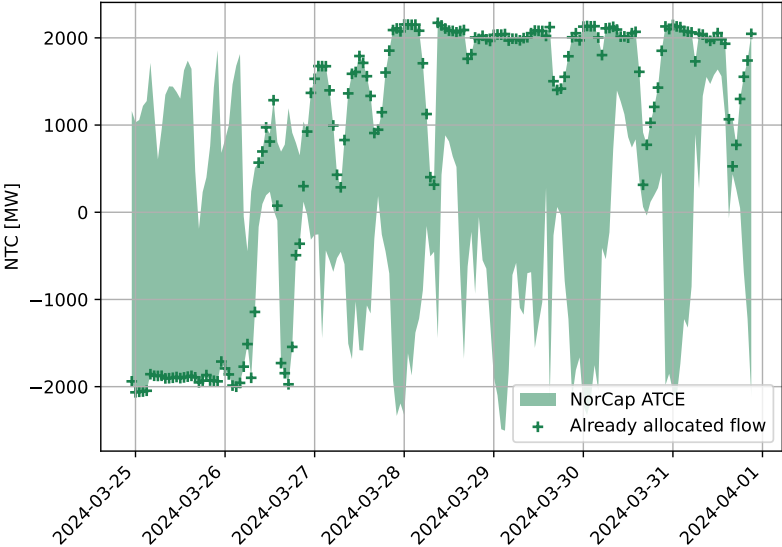
# NO1-SE3

## NTC NO1-SE3



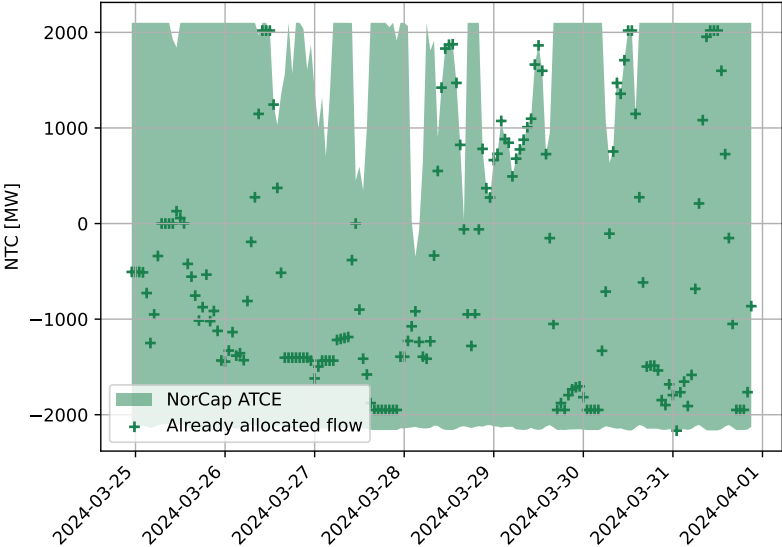
# SE3-NO1

## NTC SE3-NO1



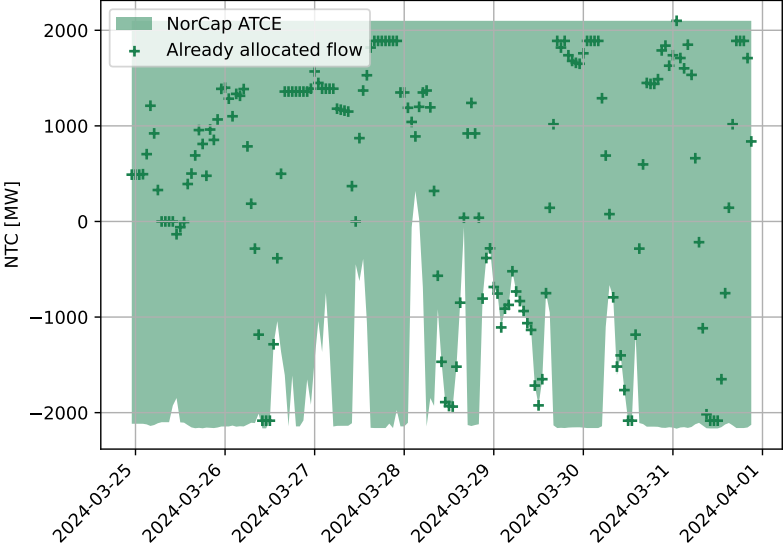
# NO2A-NO2

NTC NO2A-NO2



# NO2-NO2A

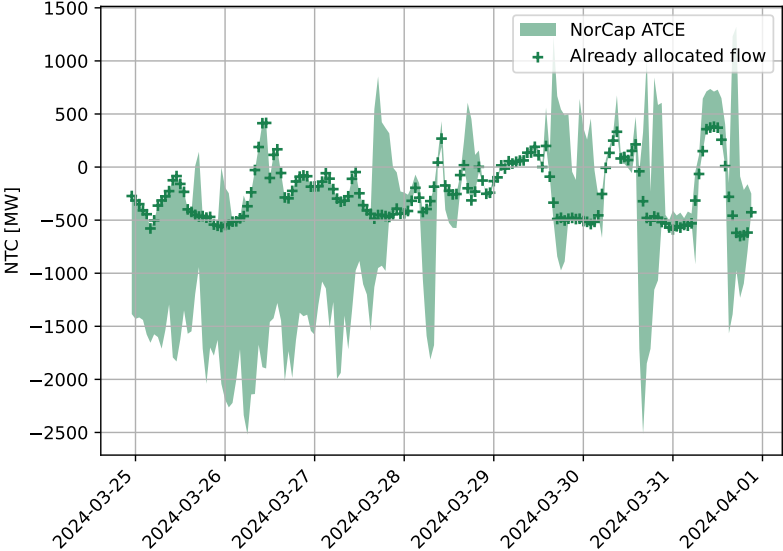
## NTC NO2-NO2A





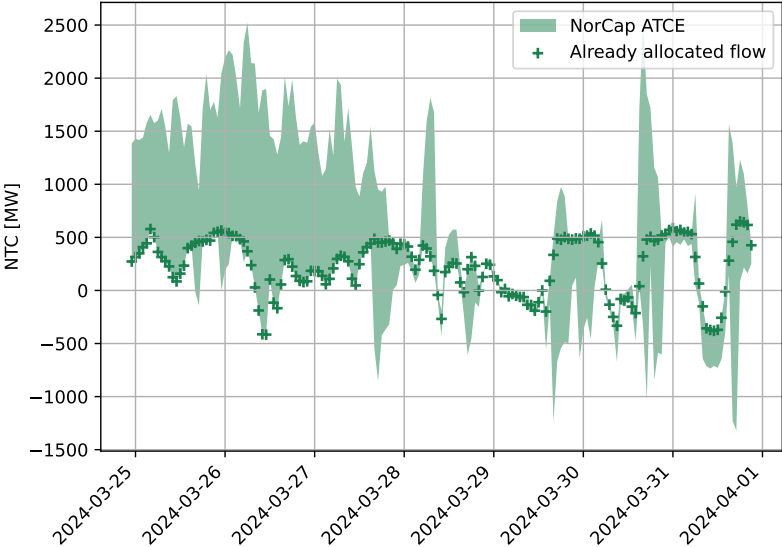
# NO2-NO5

### NTC NO2-NO5



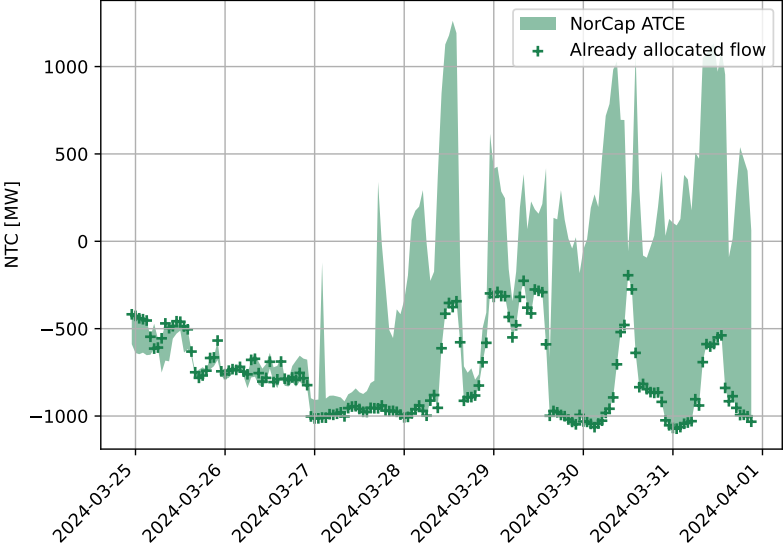
# NO5-NO2

## NTC NO5-NO2



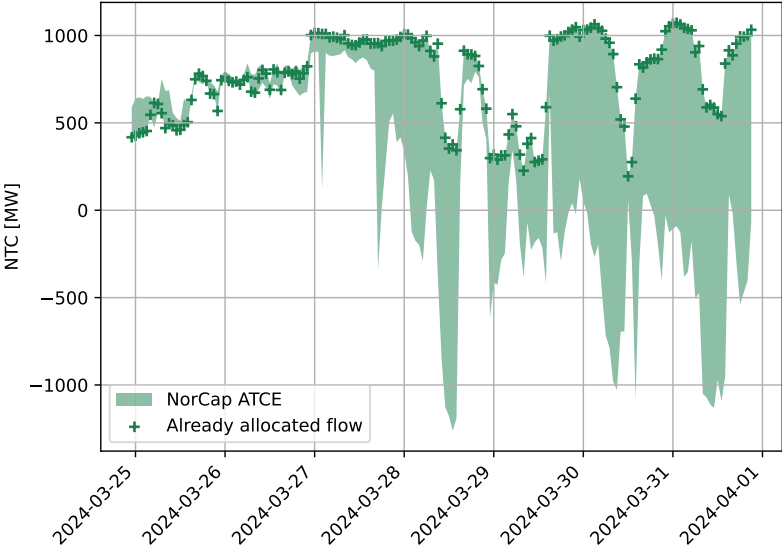
# NO3-NO4

### NTC NO3-NO4



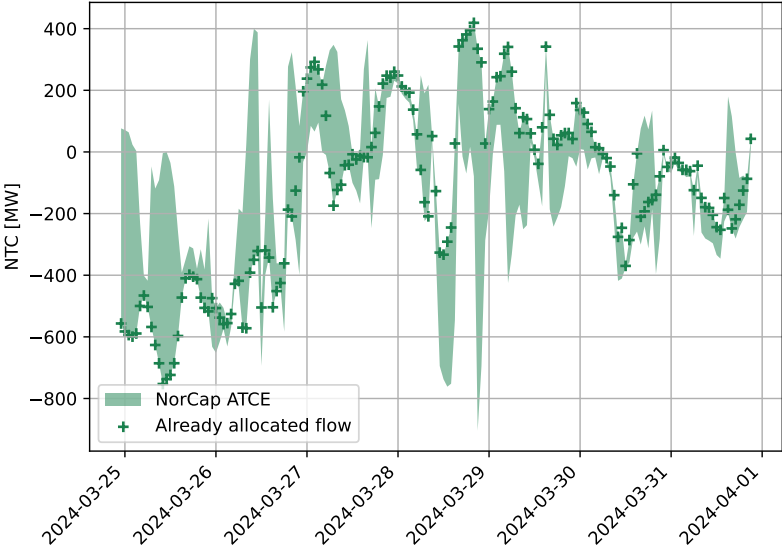
# NO4-NO3

## NTC NO4-NO3



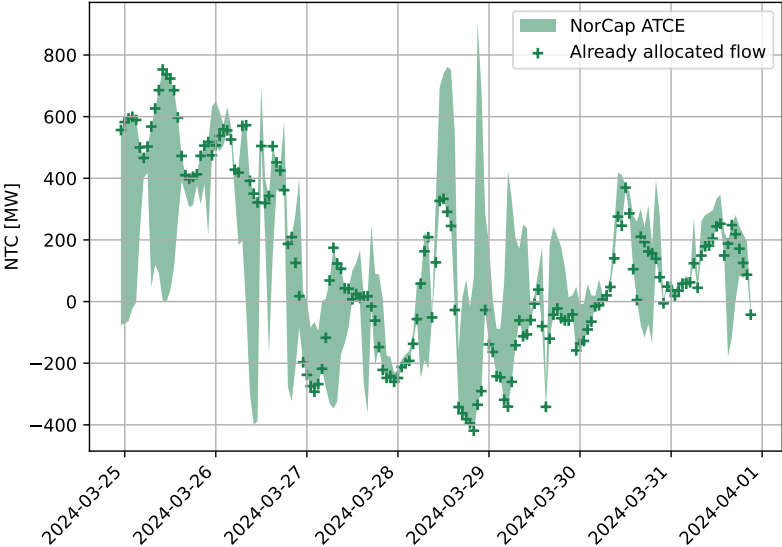
# NO3-NO5

## NTC NO3-NO5



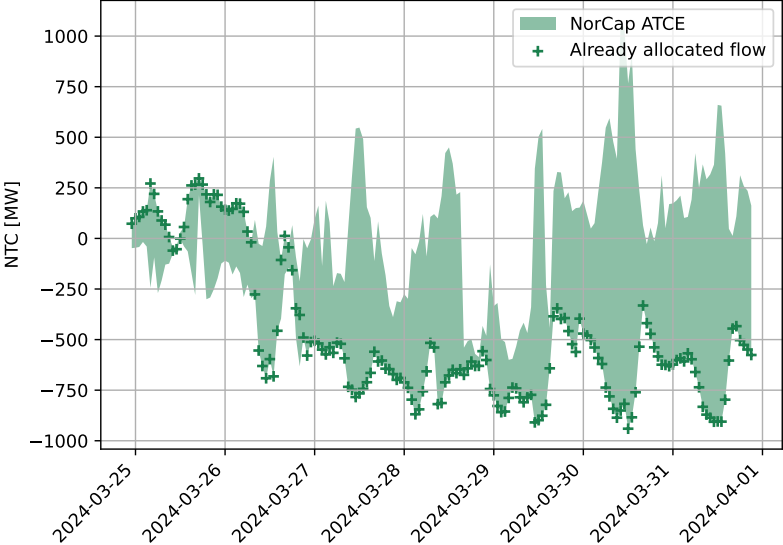
# NO5-NO3

## NTC NO5-NO3



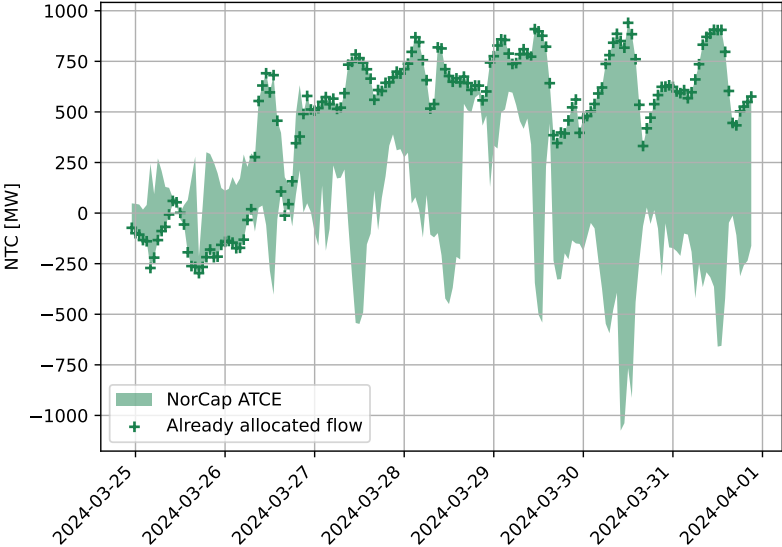
# NO3-SE2

## NTC NO3-SE2



# SE2-NO3

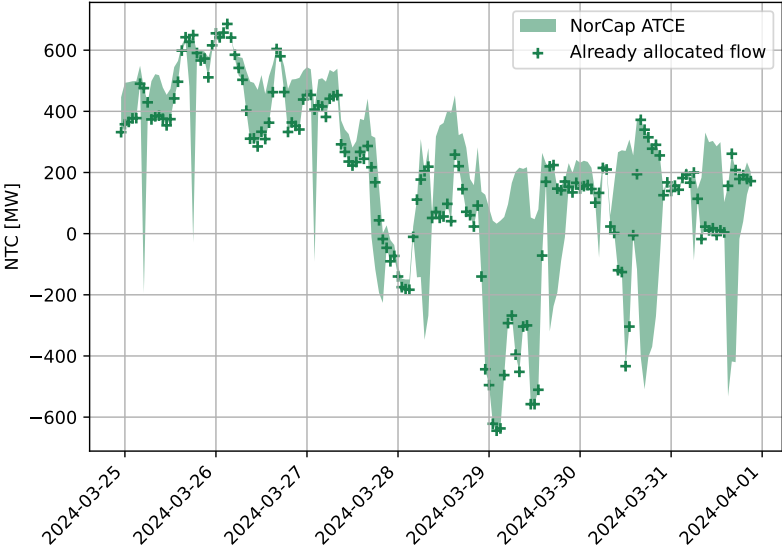
## NTC SE2-NO3





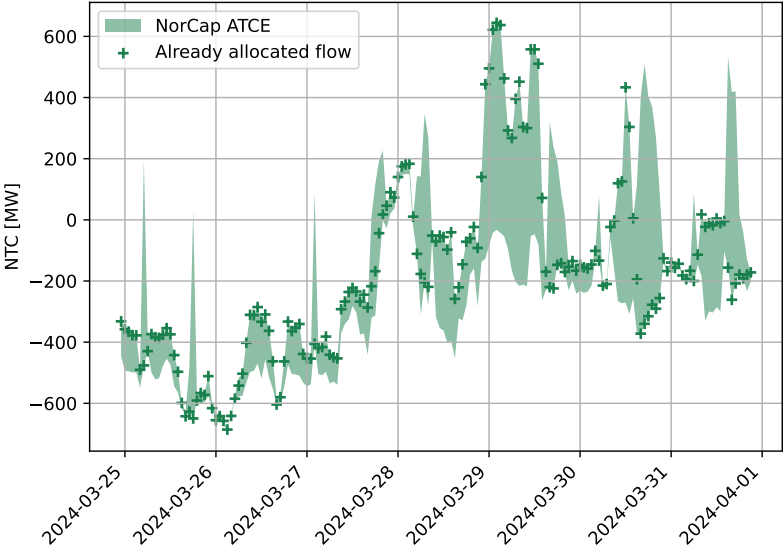
# NO4-SE1

NTC NO4-SE1



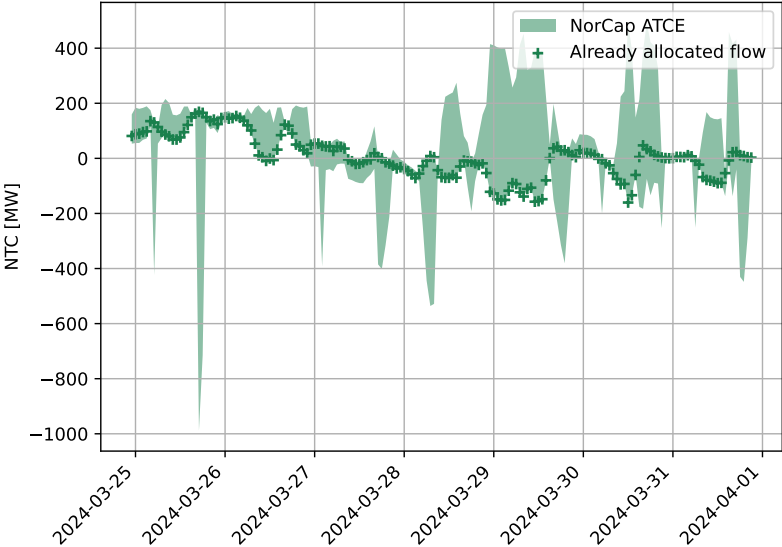
# SE1-NO4

## NTC SE1-NO4



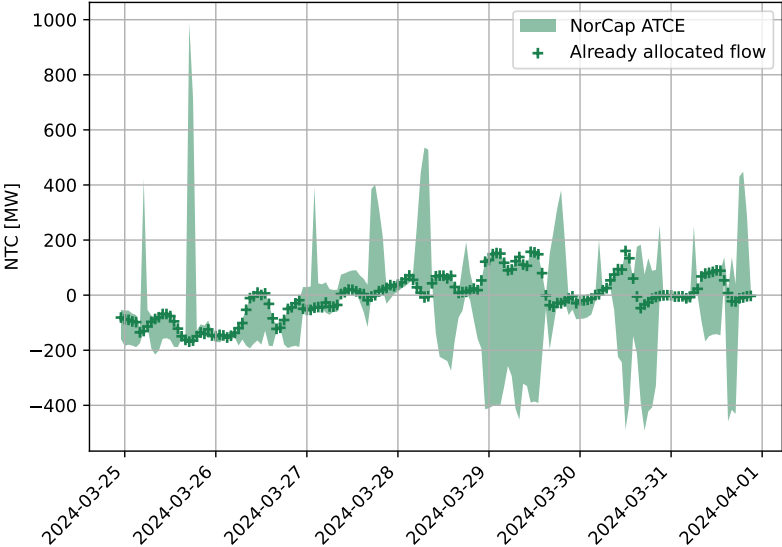
# NO4-SE2

## NTC NO4-SE2



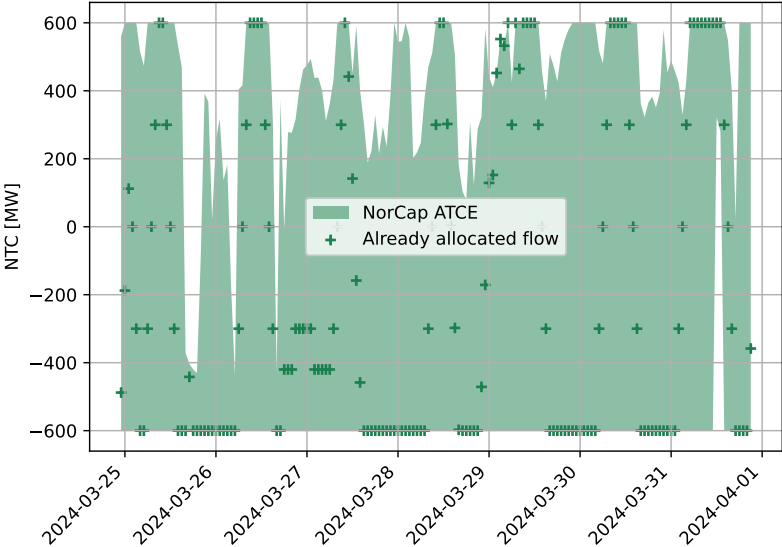
# SE2-NO4

## NTC SE2-NO4

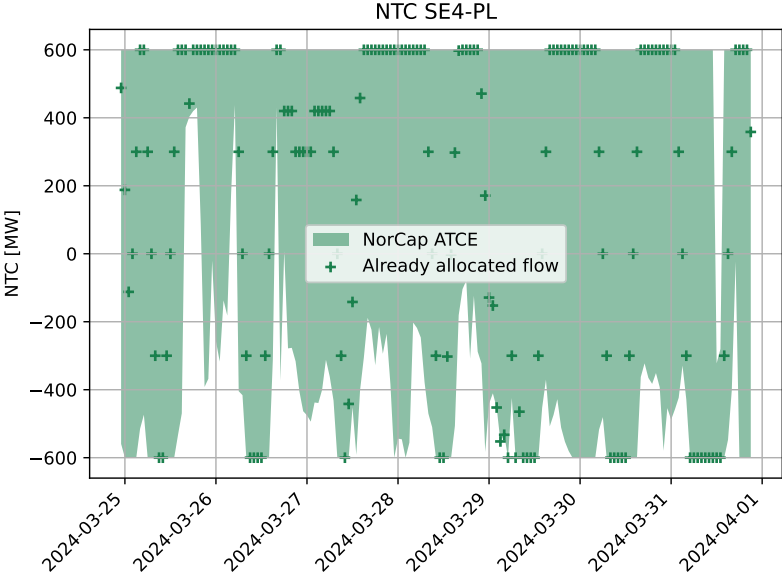


# PL-SE4

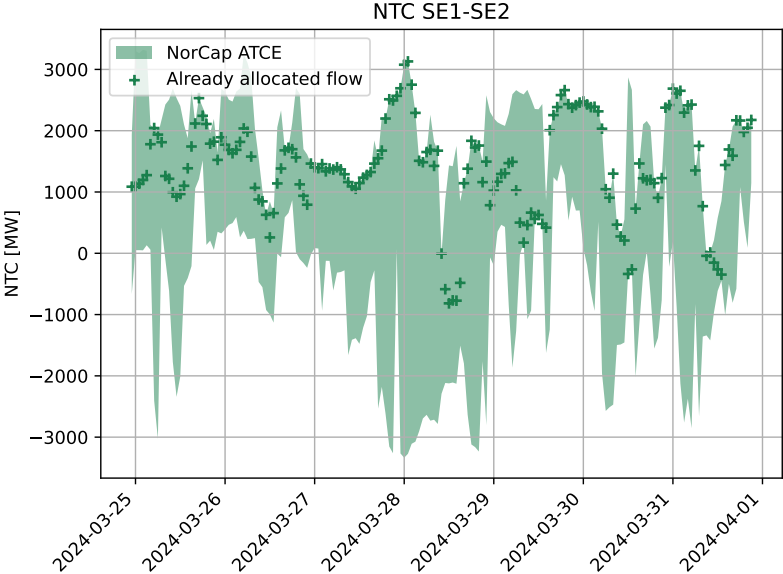
## NTC PL-SE4



# SE4-PL

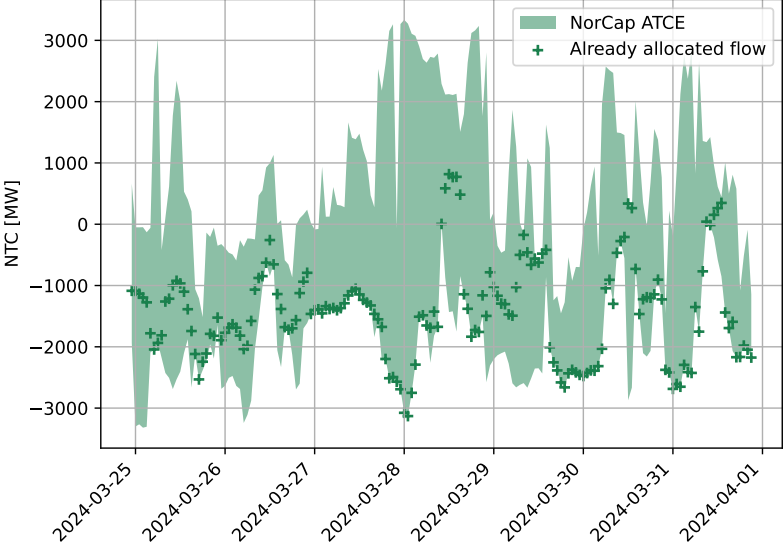


# SE1-SE2



# SE2-SE1

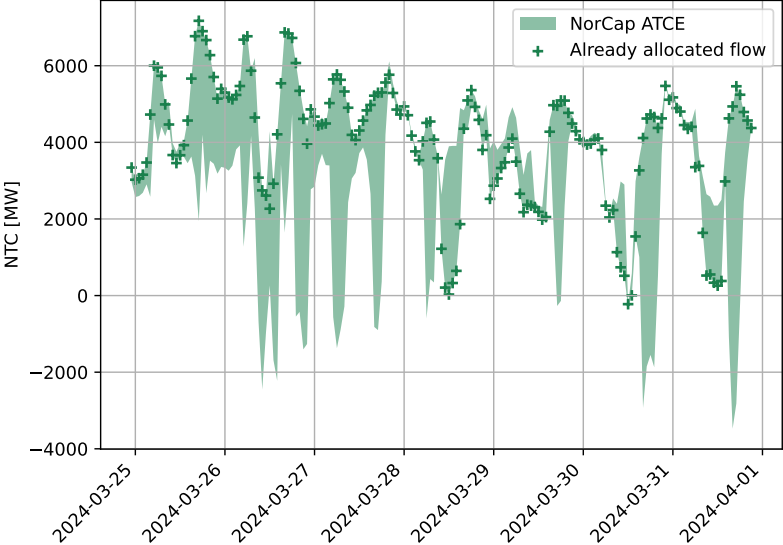
## NTC SE2-SE1





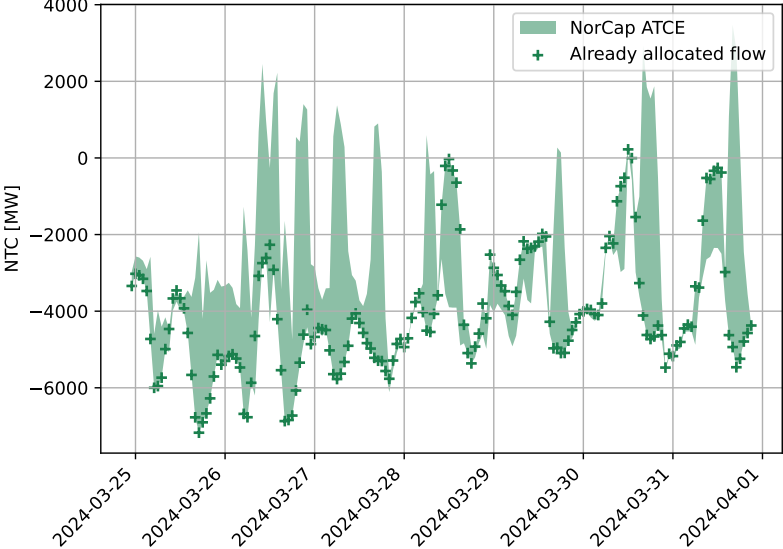
# SE2-SE3

## NTC SE2-SE3



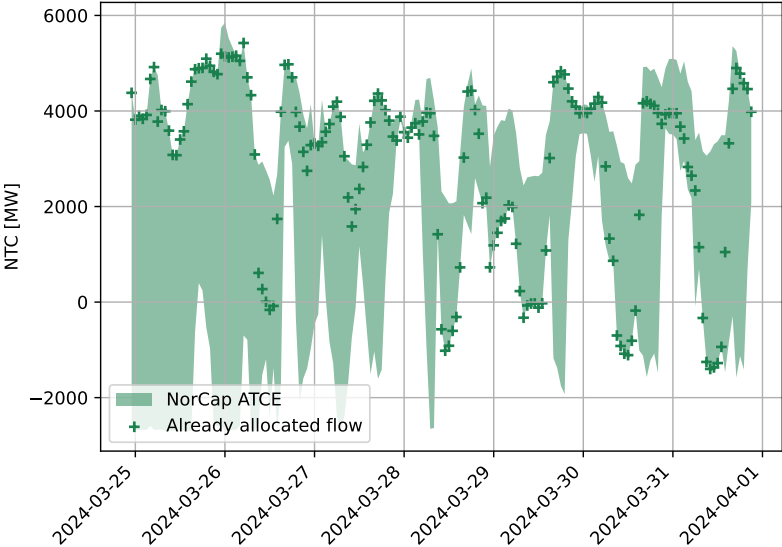
# SE3-SE2

## NTC SE3-SE2



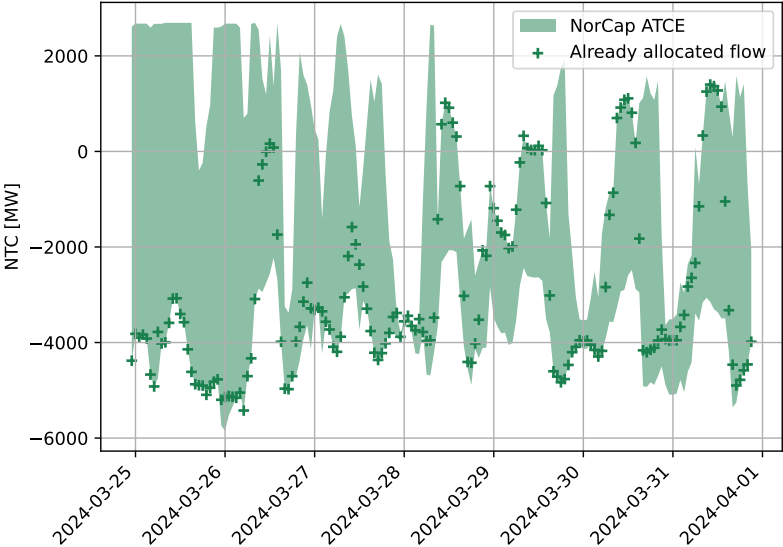
# SE3-SE4

## NTC SE3-SE4



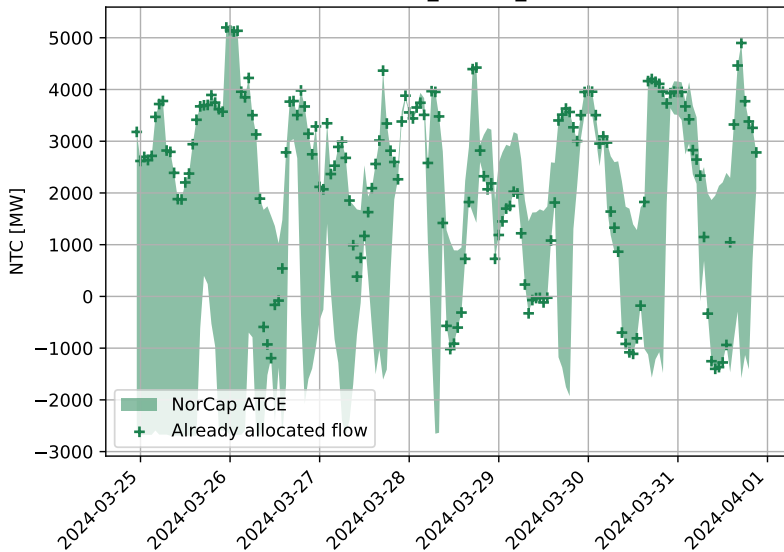
# SE4-SE3

## NTC SE4-SE3

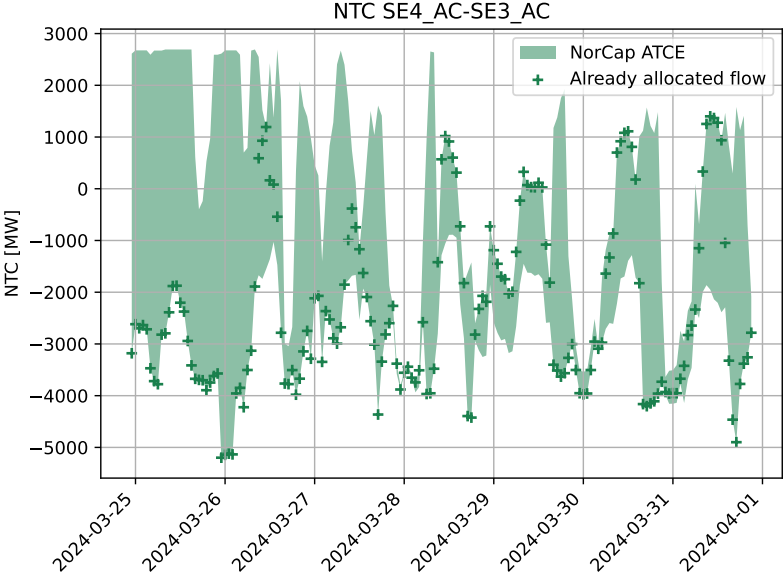


# SE3\_AC-SE4\_AC

NTC SE3\_AC-SE4\_AC

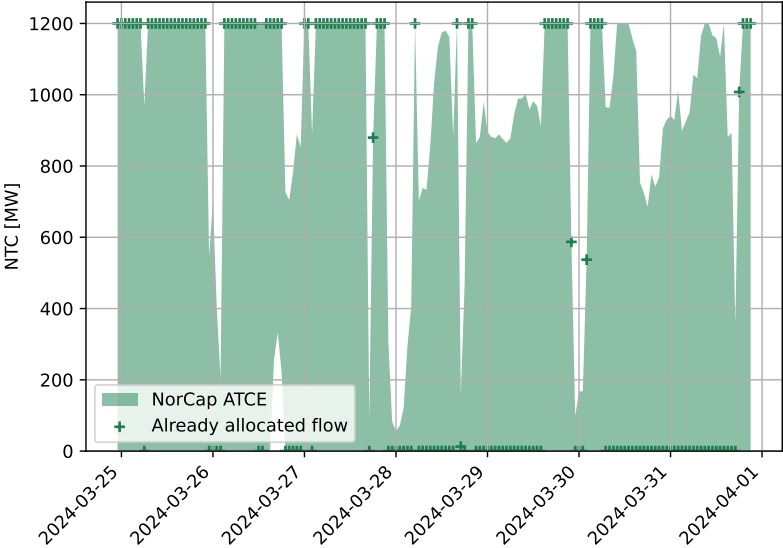


# SE4\_AC-SE3\_AC

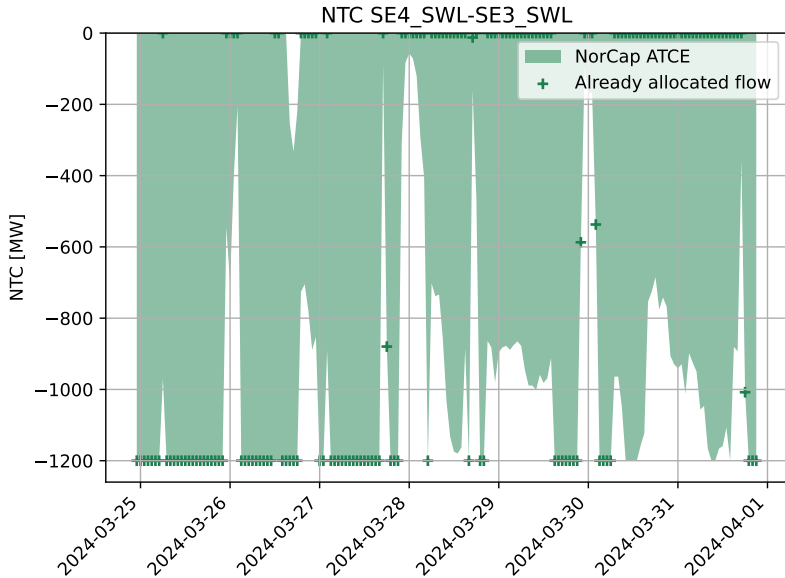


# SE3\_SWL-SE4\_SWL

NTC SE3\_SWL-SE4\_SWL



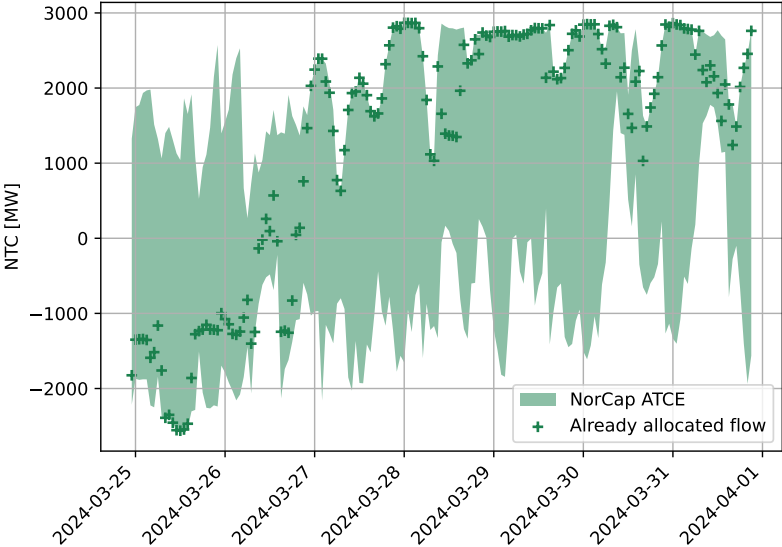
# SE4\_SWL-SE3\_SWL





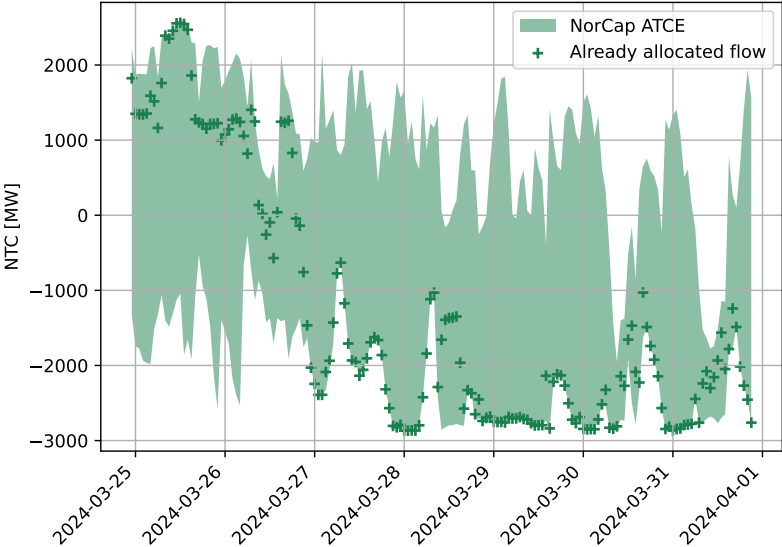
# SE3A-SE3

## NTC SE3A-SE3



# SE3-SE3A

## NTC SE3-SE3A

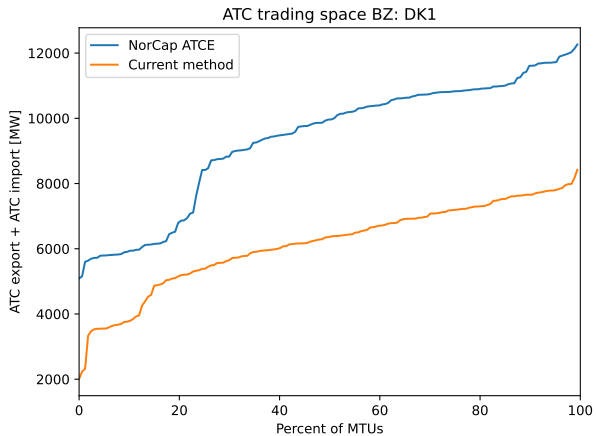


# Bidding zone trading space

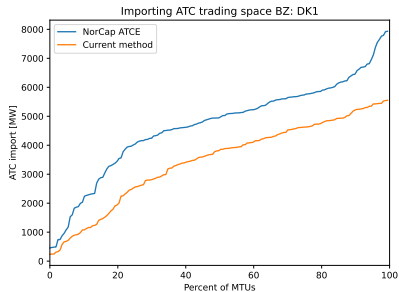
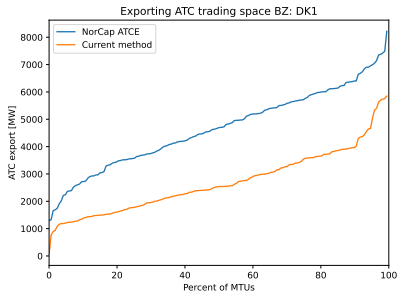
The total trading space of a bidding zone for a given MTU is the sum of export capacity and import capacity on all borders of that bidding zone for that MTU. The directional trading space is the sum of ATC on all borders of a bidding zone in either exporting or importing direction.

Disclaimer: Trading space computed by the reference method (i.e. the current method used in production) are calculated from intra-day offered ATCs collected from ENTSO-e transparency platform. It must be noted that the capacities collected at transparency platform are harmonized capacities including limitations submitted by non-Nordic TSOs and ramping constraints for some HVDCs.

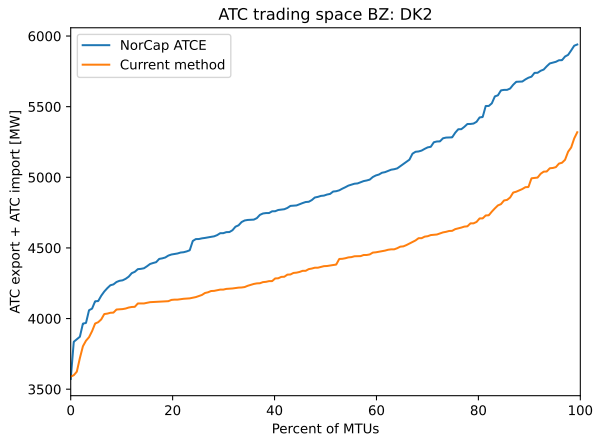
# DK1 - Total trading space



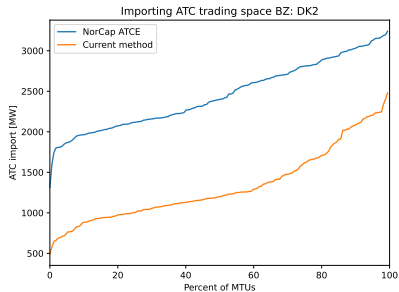
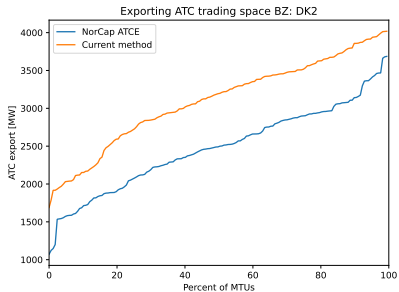
# DK1 - Directional trading space



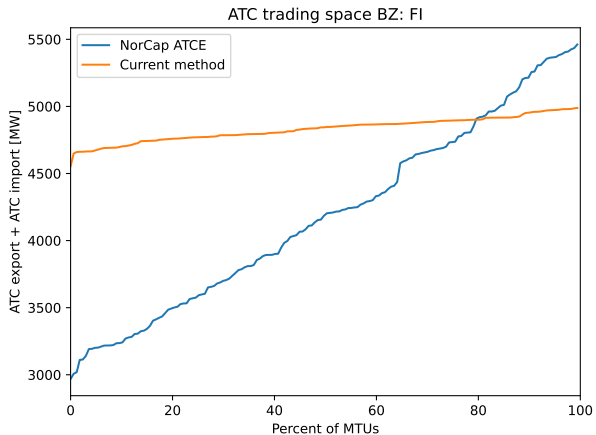
# DK2 - Total trading space



# DK2 - Directional trading space

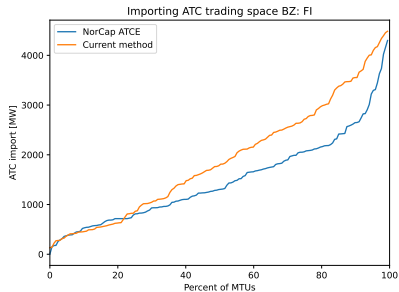
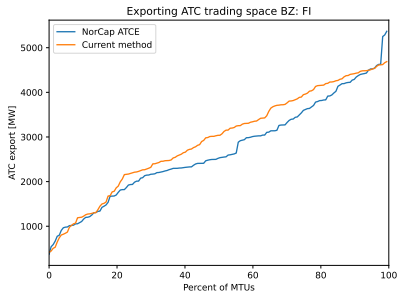


# FI - Total trading space

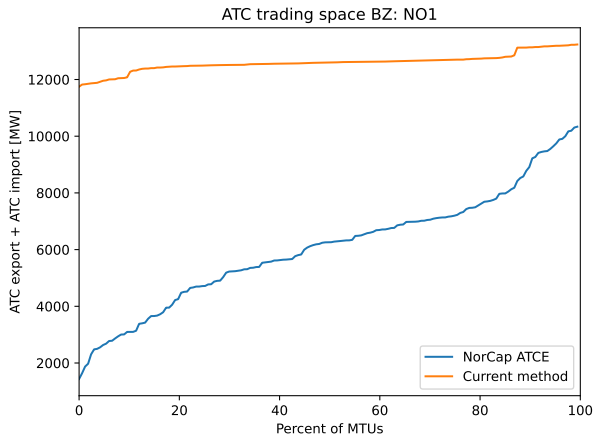




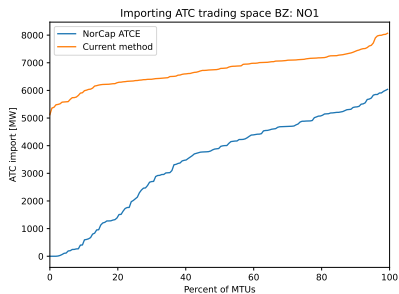
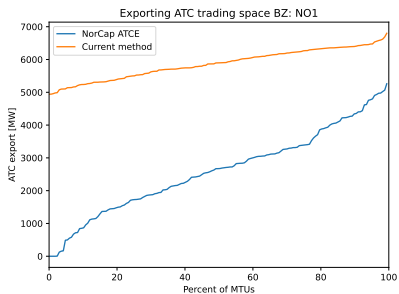
# FI - Directional trading space



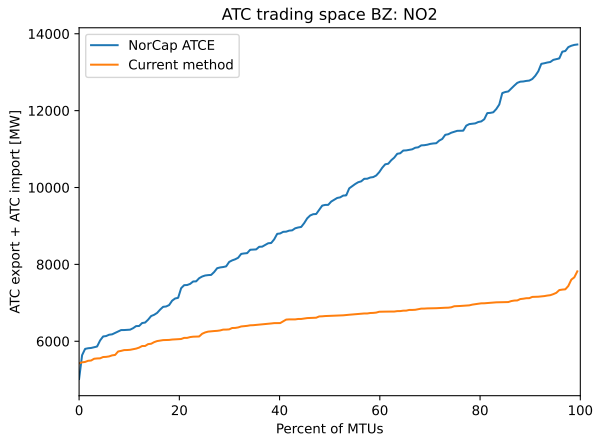
# NO1 - Total trading space



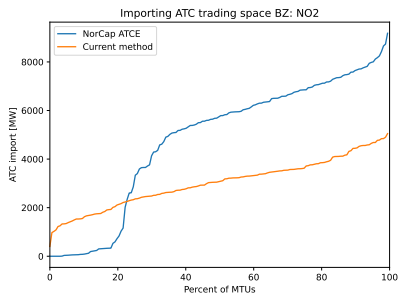
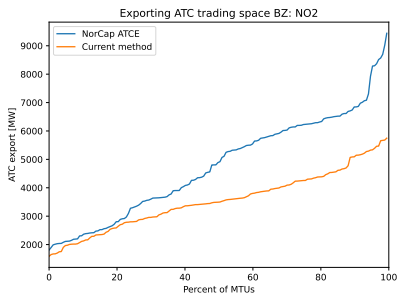
# NO1 - Directional trading space



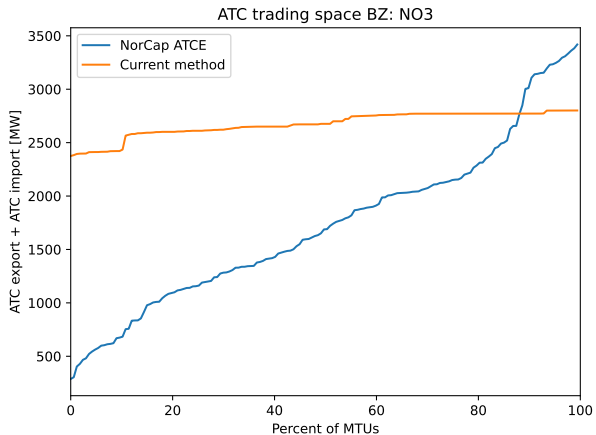
# NO2 - Total trading space



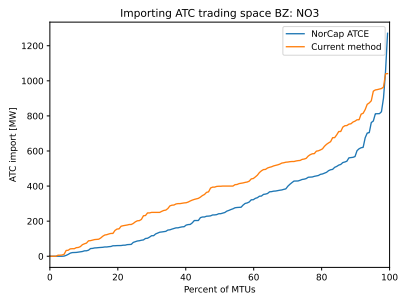
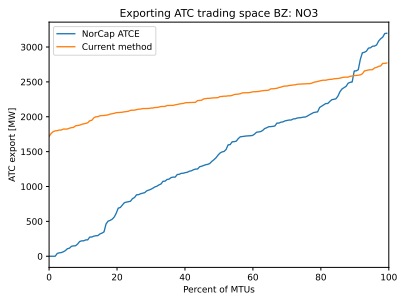
# NO2 - Directional trading space



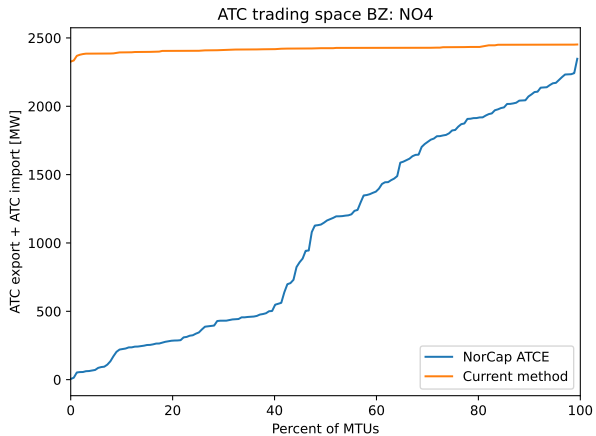
# NO3 - Total trading space



# NO3 - Directional trading space

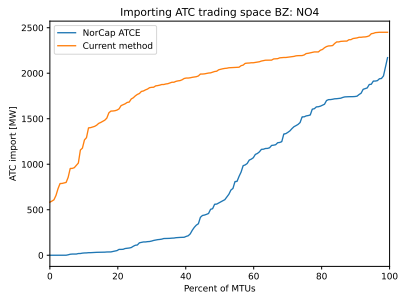
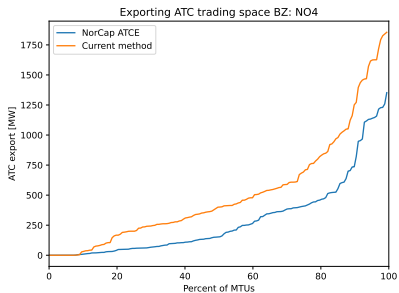


# NO4 - Total trading space

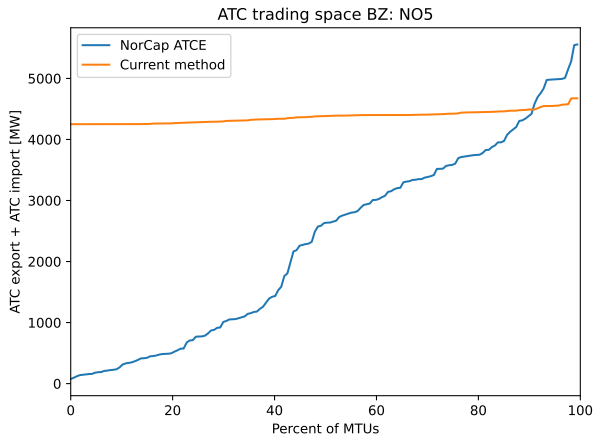




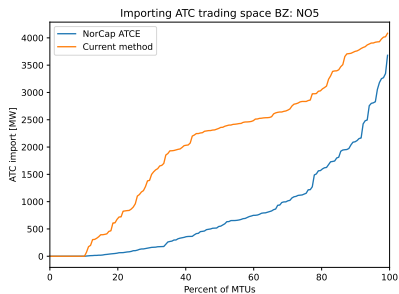
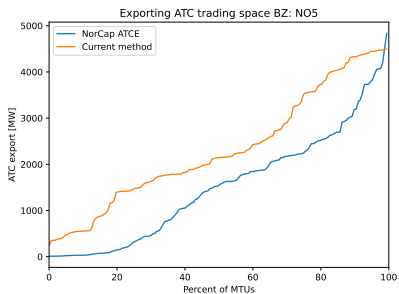
# NO4 - Directional trading space



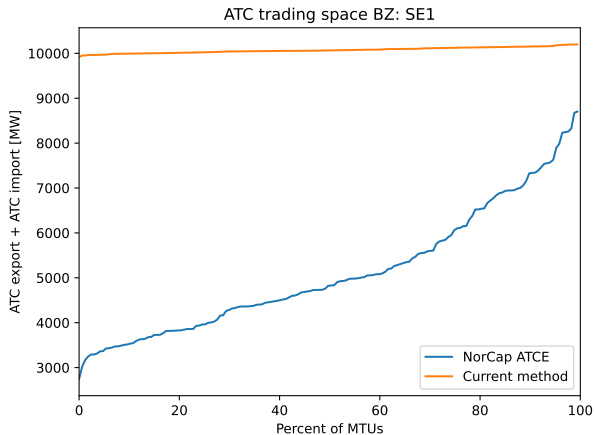
# NO5 - Total trading space



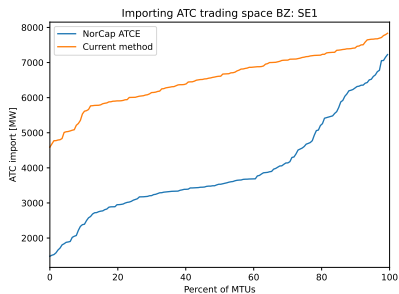
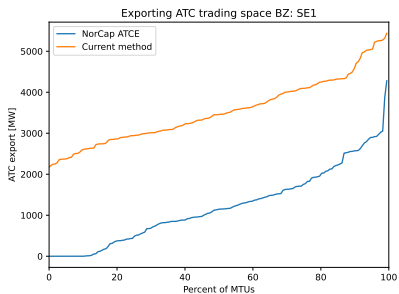
# NO5 - Directional trading space



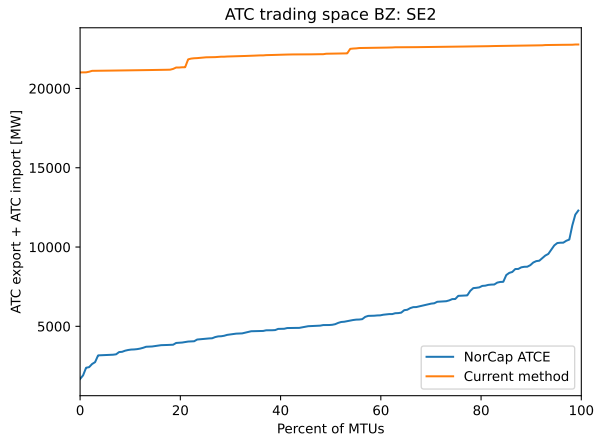
# SE1 - Total trading space



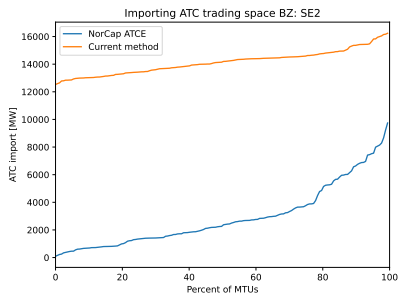
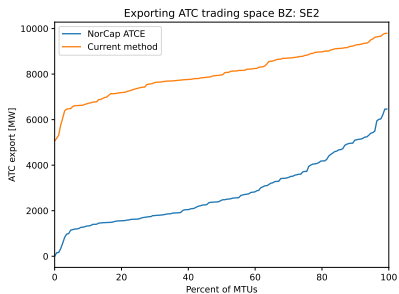
# SE1 - Directional trading space



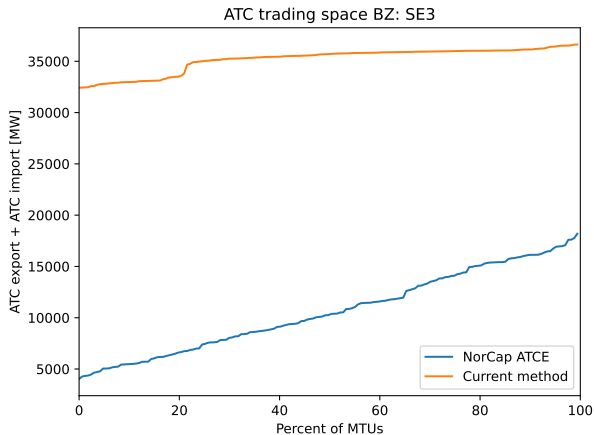
# SE2 - Total trading space



# SE2 - Directional trading space

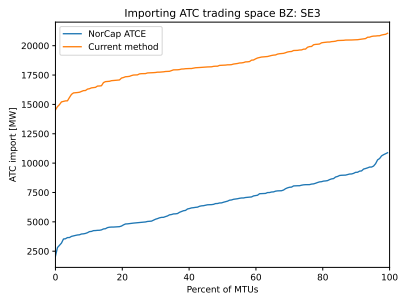
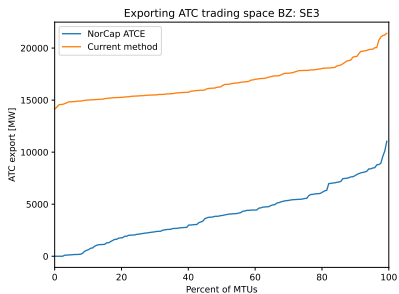


# SE3 - Total trading space

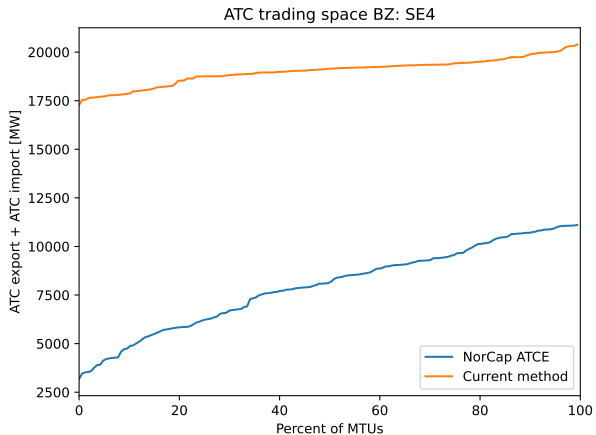




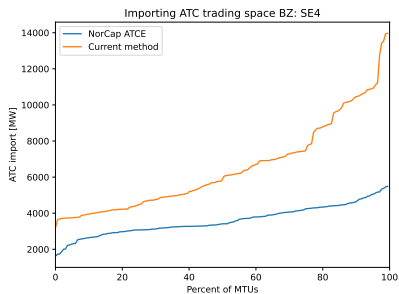
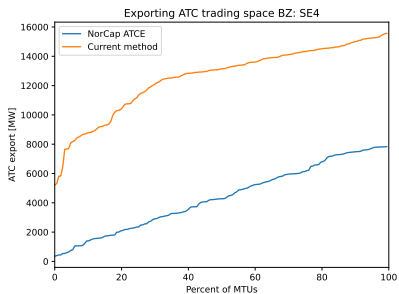
# SE3 - Directional trading space



# SE4 - Total trading space

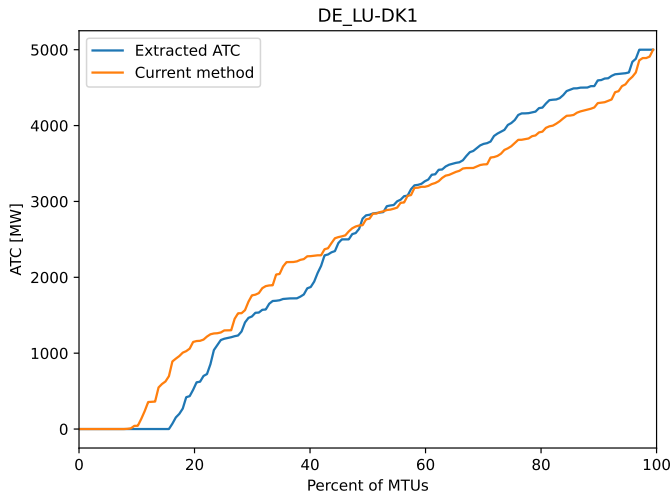


# SE4 - Directional trading space

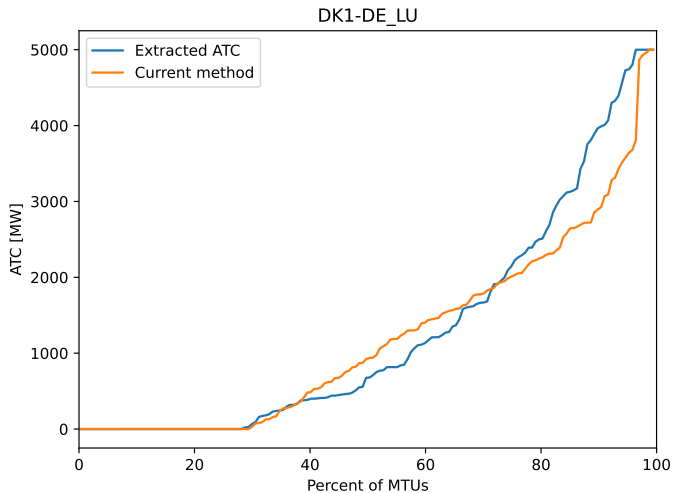


# Capacity duration curves

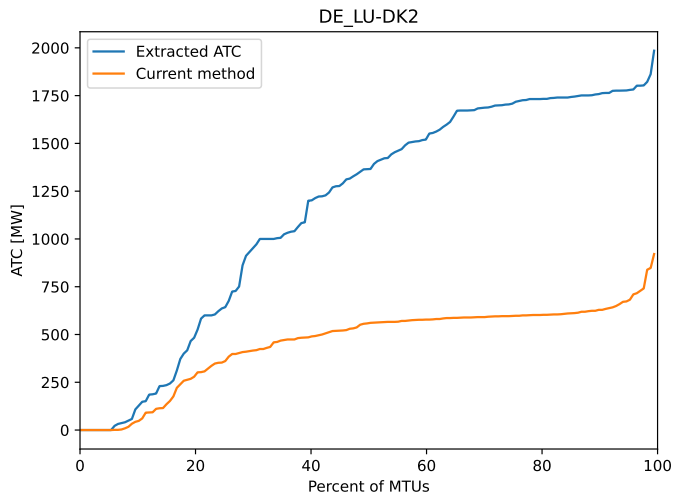
# DE\_LU-DK1 ATC duration curves



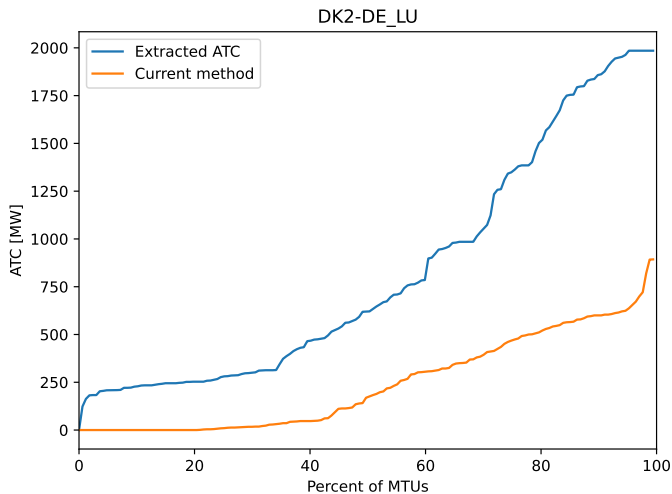
# DK1-DE\_LU ATC duration curves



# DE\_LU-DK2 ATC duration curves

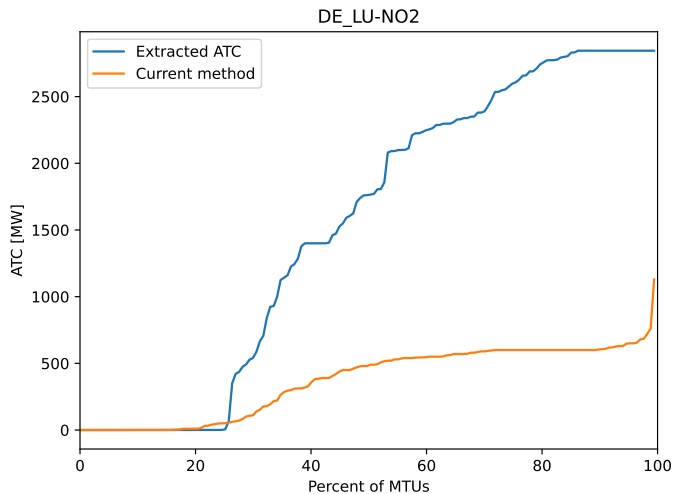


# DK2-DE\_LU ATC duration curves

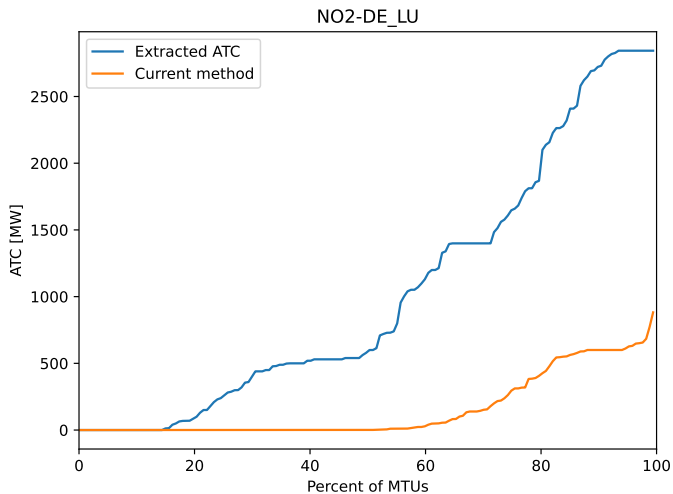




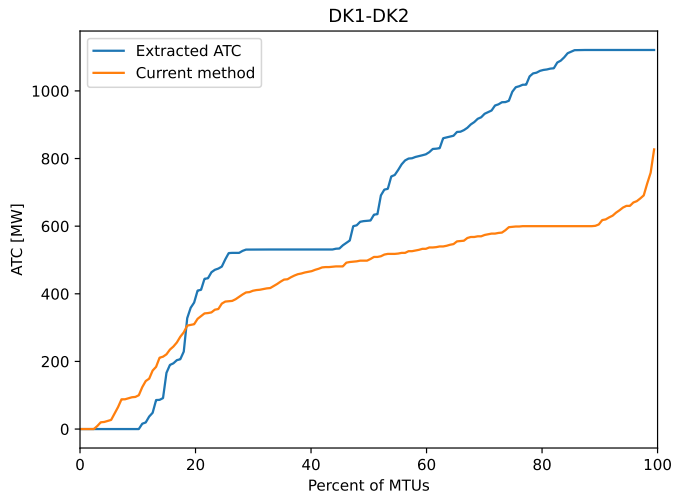
# DE\_LU-NO2 ATC duration curves



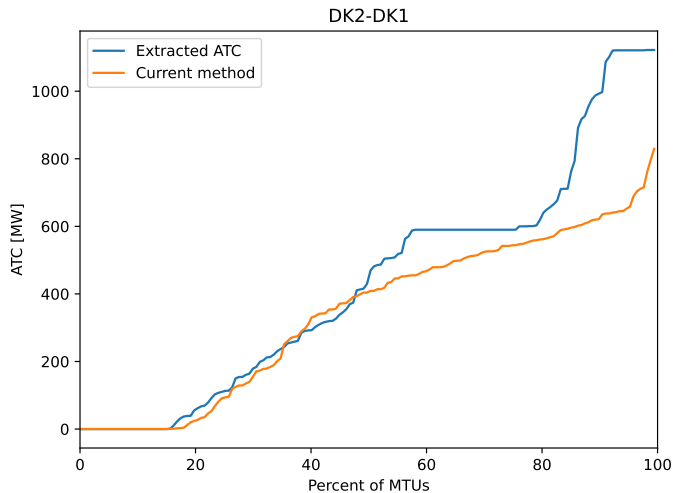
# NO2-DE\_LU ATC duration curves



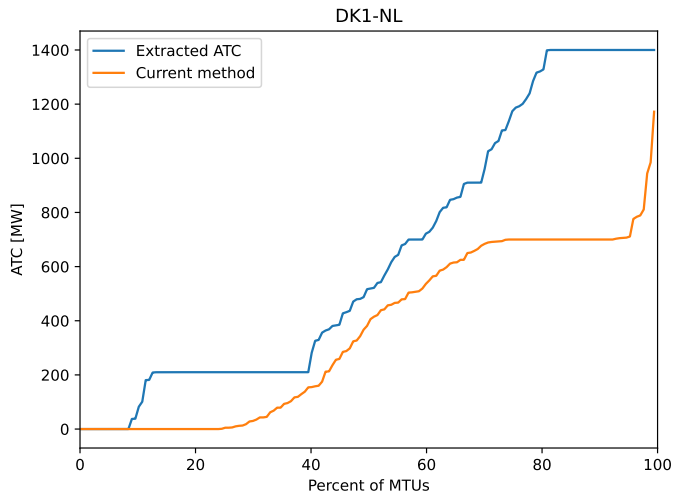
# DK1-DK2 ATC duration curves



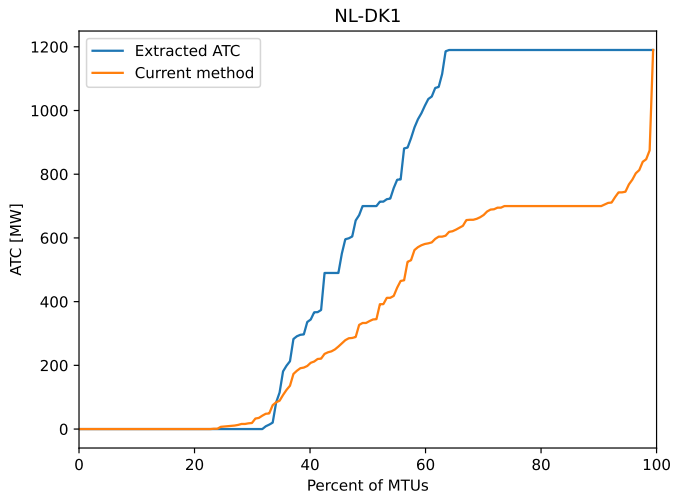
# DK2-DK1 ATC duration curves



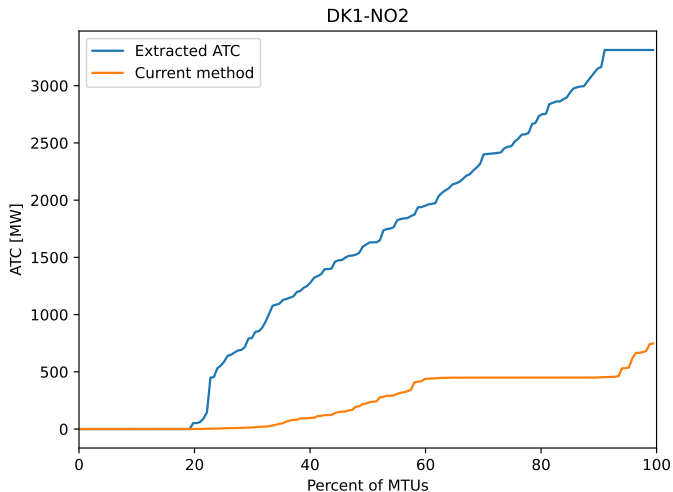
# DK1-NL ATC duration curves



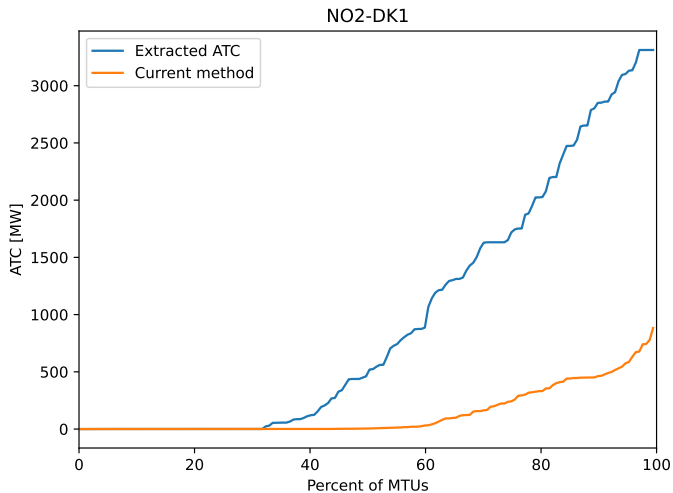
# NL-DK1 ATC duration curves



# DK1-NO2 ATC duration curves

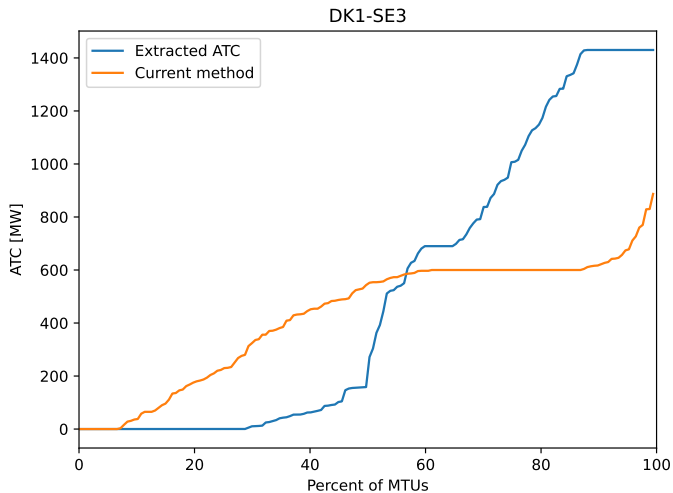


# NO2-DK1 ATC duration curves

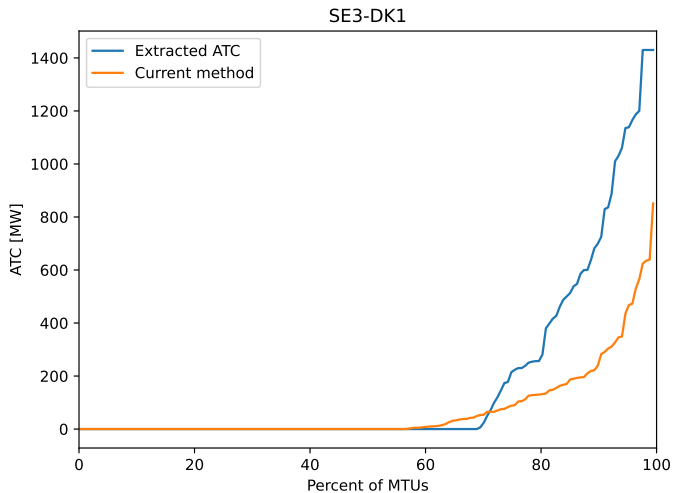




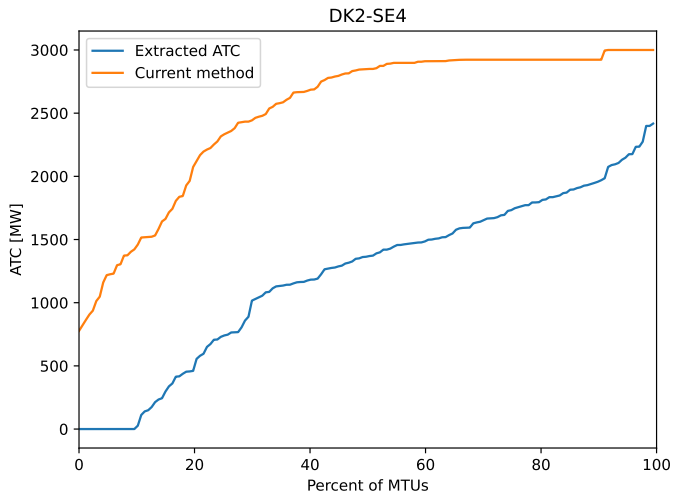
# DK1-SE3 ATC duration curves



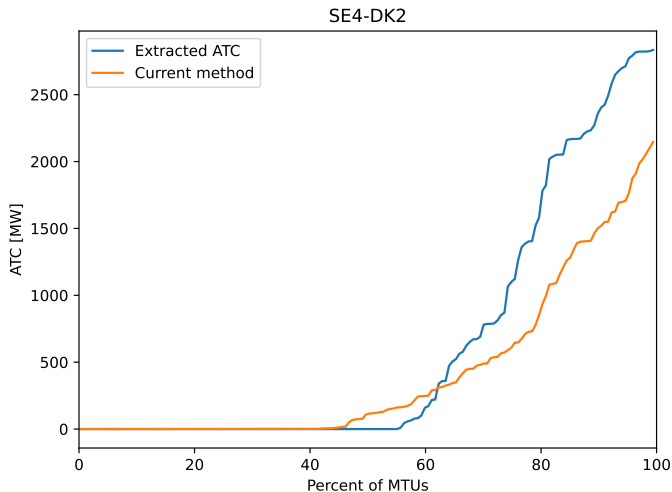
# SE3-DK1 ATC duration curves



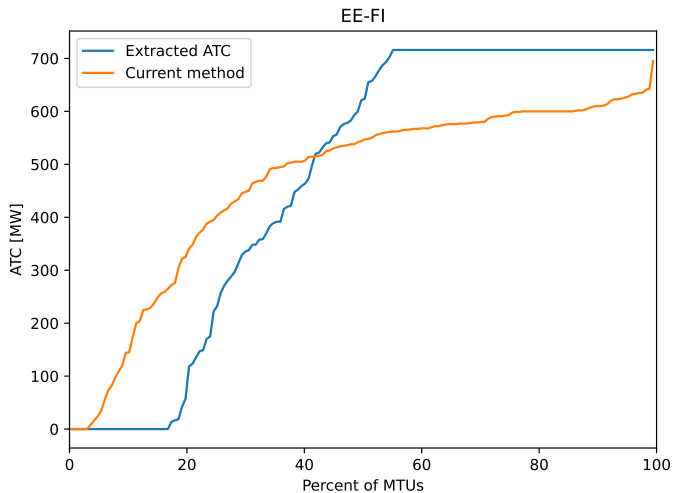
# DK2-SE4 ATC duration curves



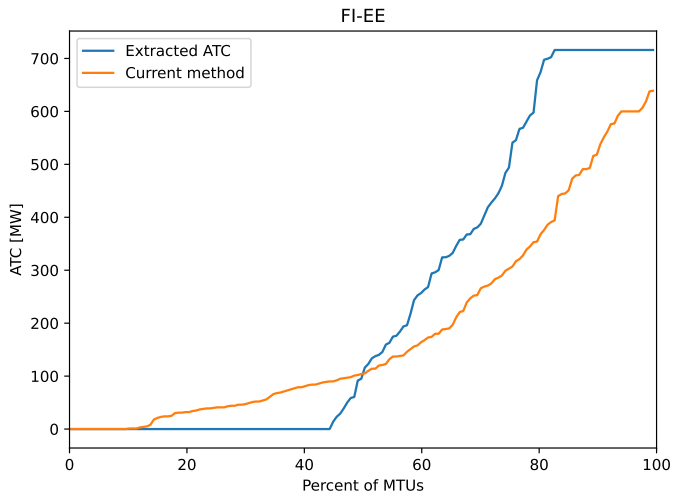
# SE4-DK2 ATC duration curves



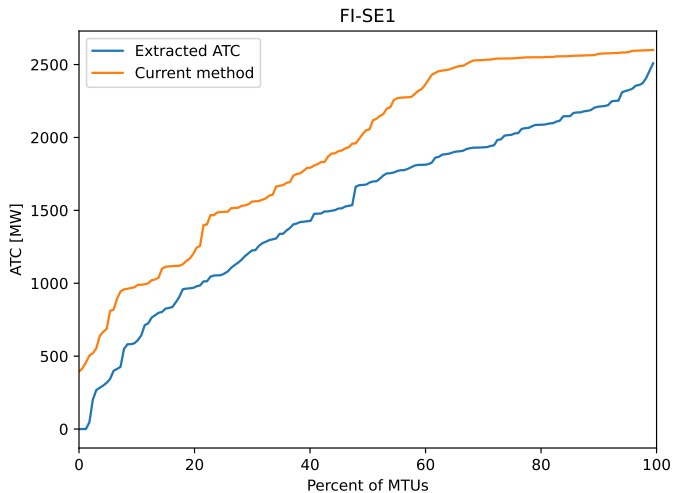
# EE-FI ATC duration curves



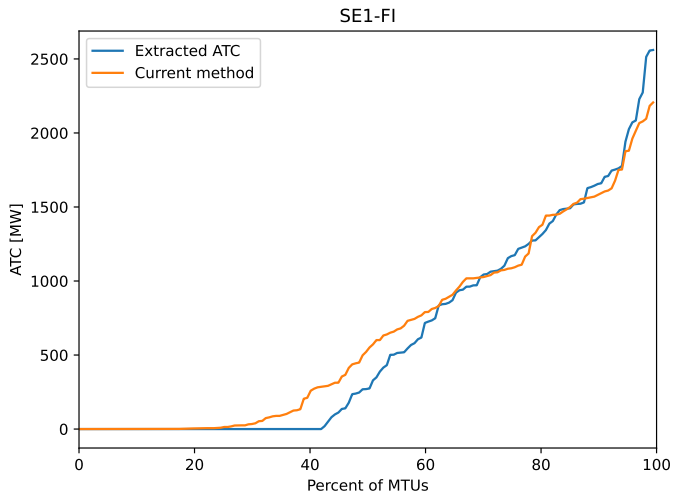
# FI-EE ATC duration curves



# FI-SE1 ATC duration curves

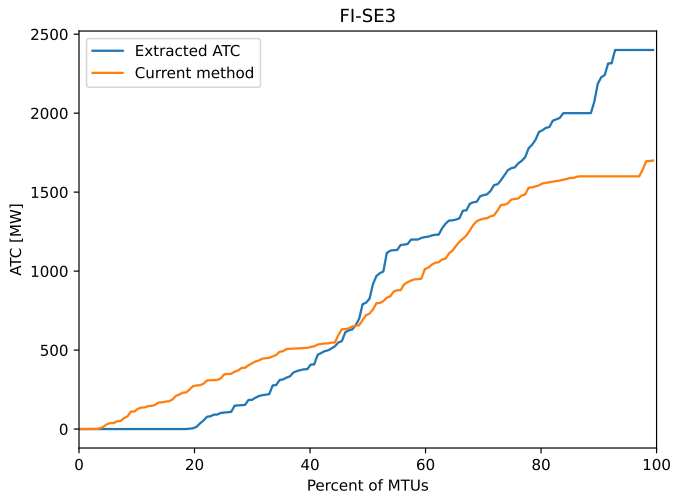


# SE1-FI ATC duration curves

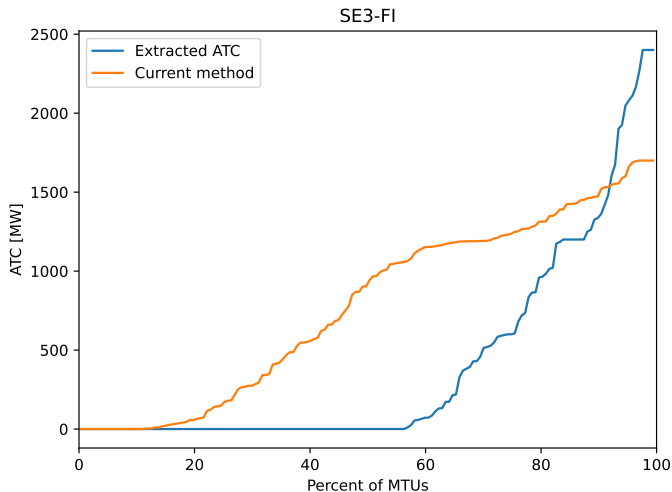




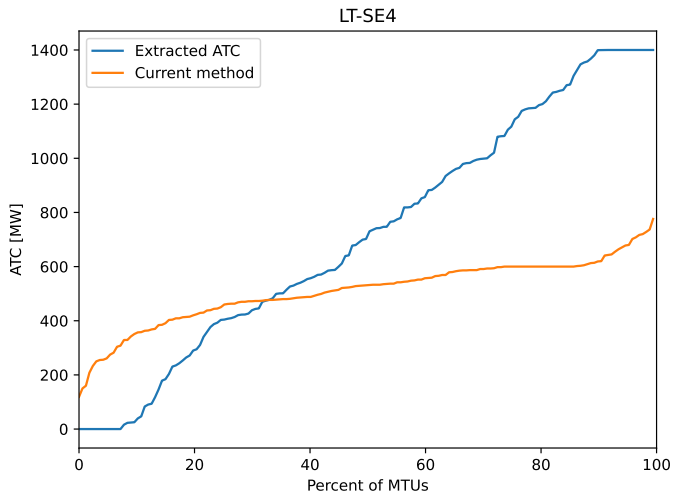
# FI-SE3 ATC duration curves



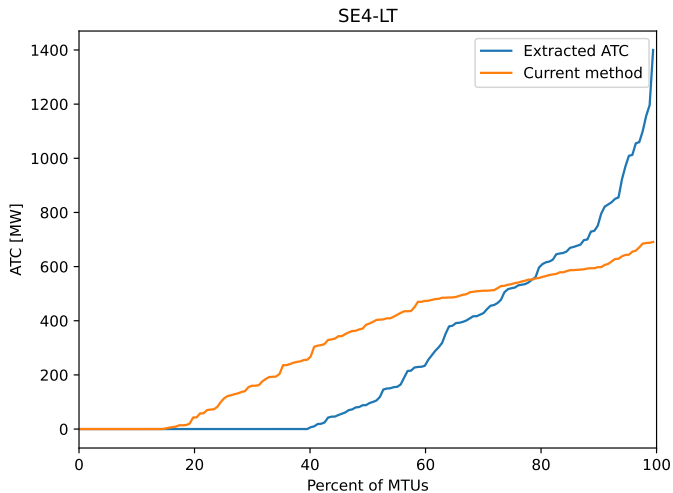
# SE3-FI ATC duration curves



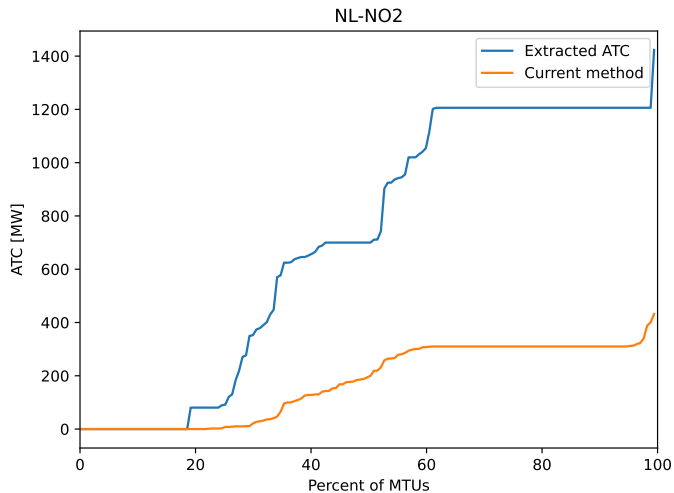
# LT-SE4 ATC duration curves



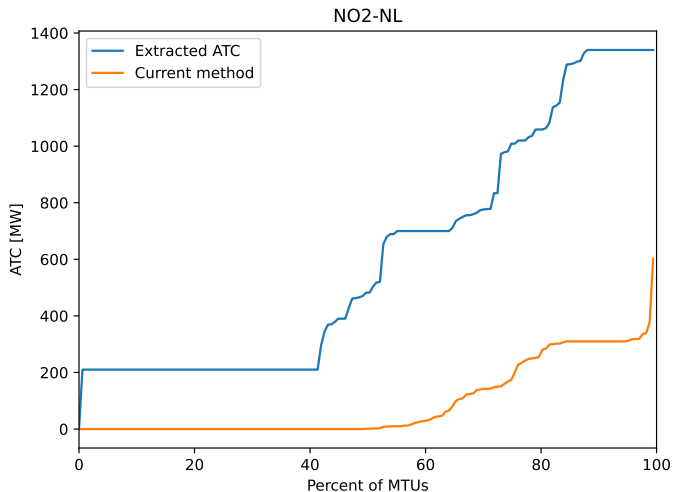
# SE4-LT ATC duration curves



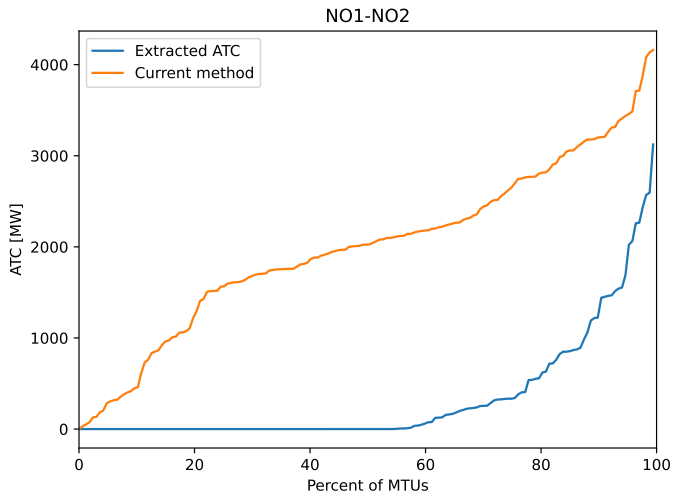
# NL-NO2 ATC duration curves



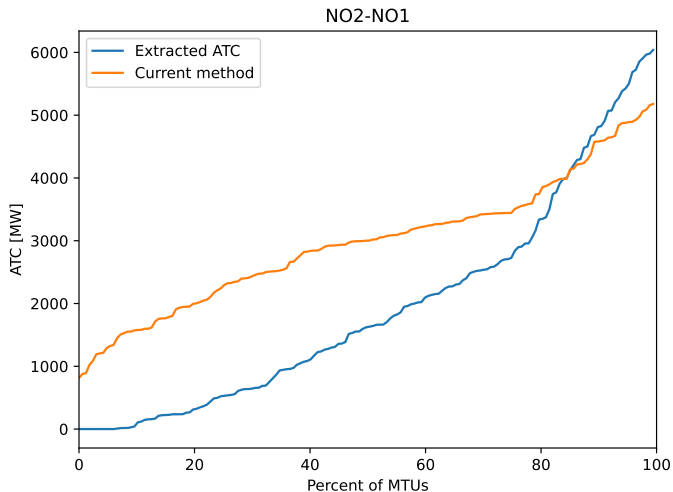
# NO2-NL ATC duration curves



# NO1-NO2 ATC duration curves

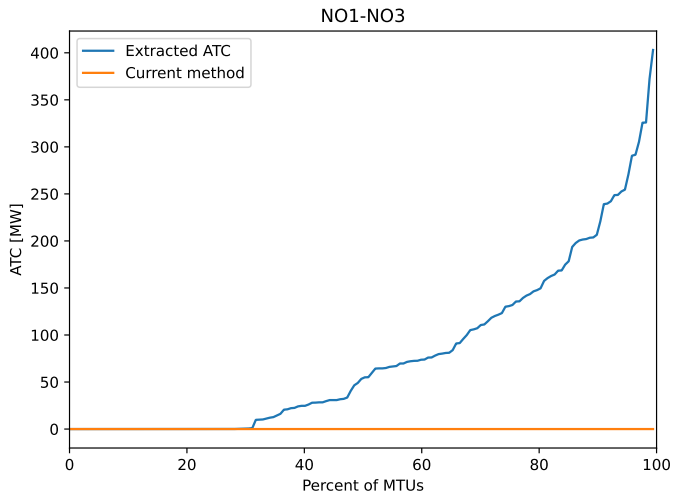


# NO2-NO1 ATC duration curves

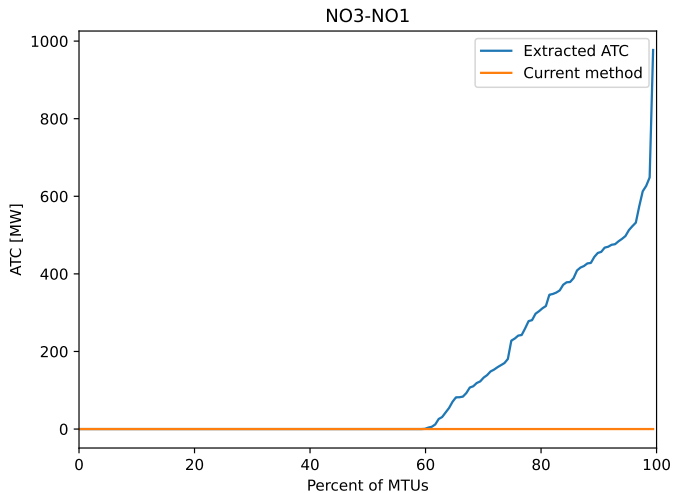




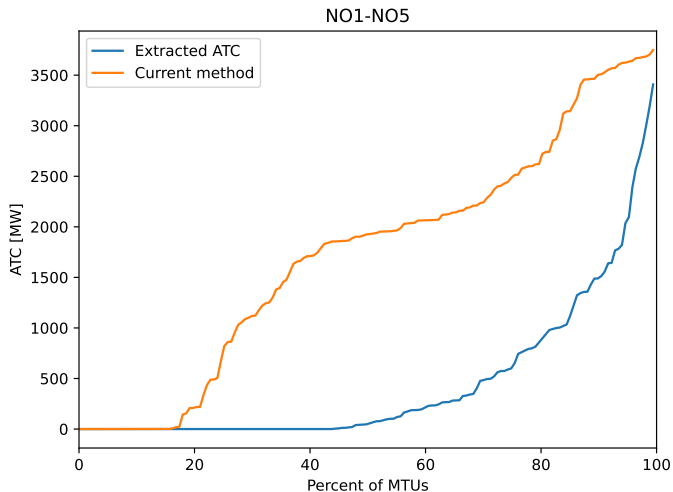
# NO1-NO3 ATC duration curves



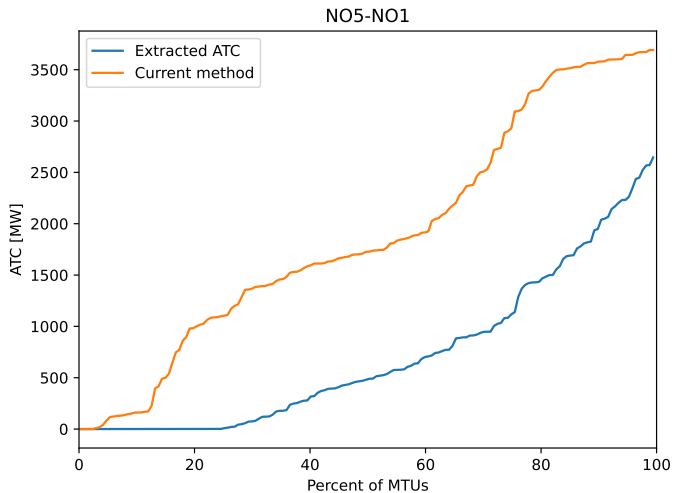
# NO3-NO1 ATC duration curves



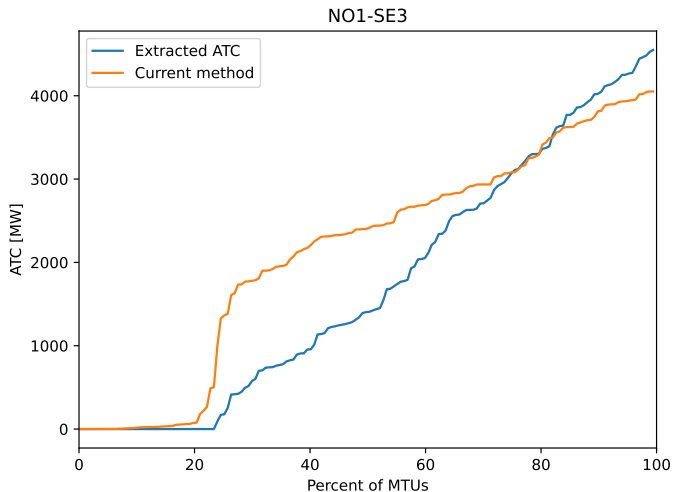
# NO1-NO5 ATC duration curves



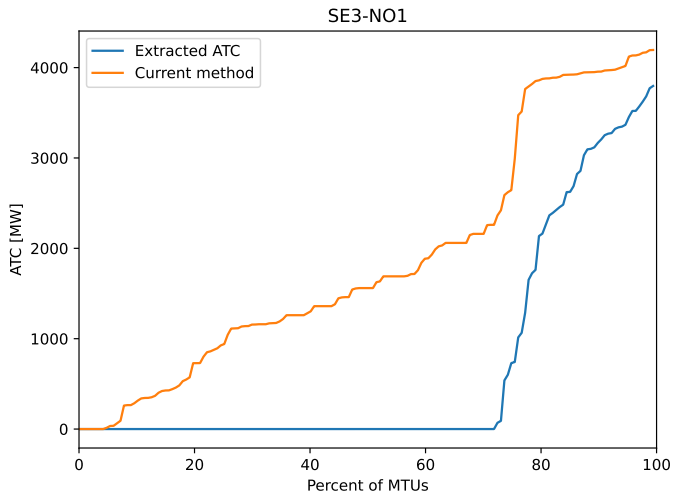
# NO5-NO1 ATC duration curves



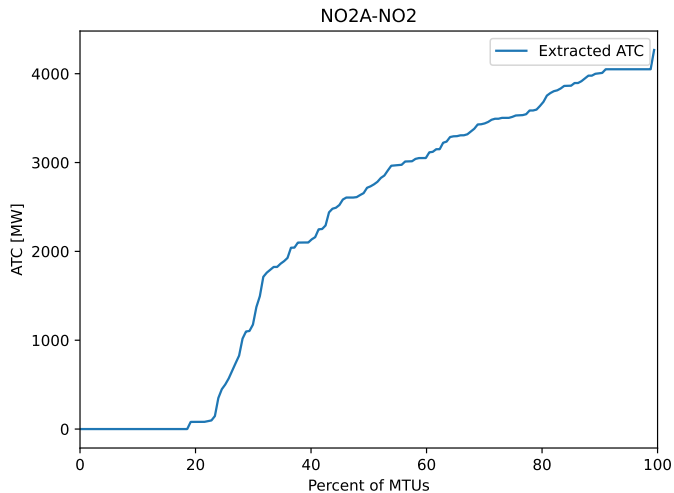
# NO1-SE3 ATC duration curves



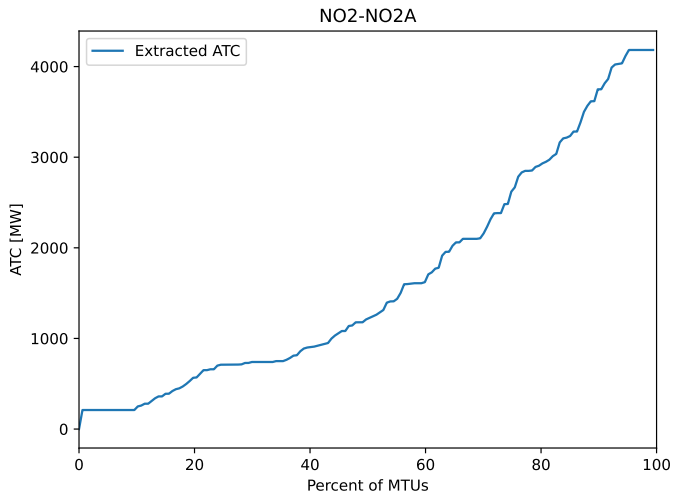
# SE3-NO1 ATC duration curves



# NO2A-NO2 ATC duration curves

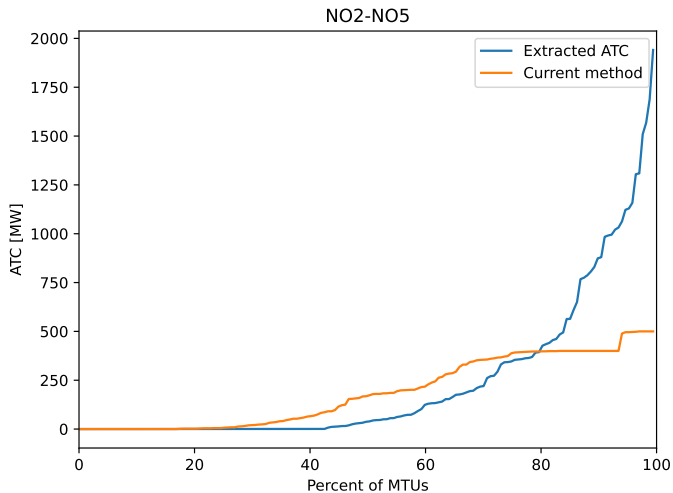


# NO2-NO2A ATC duration curves

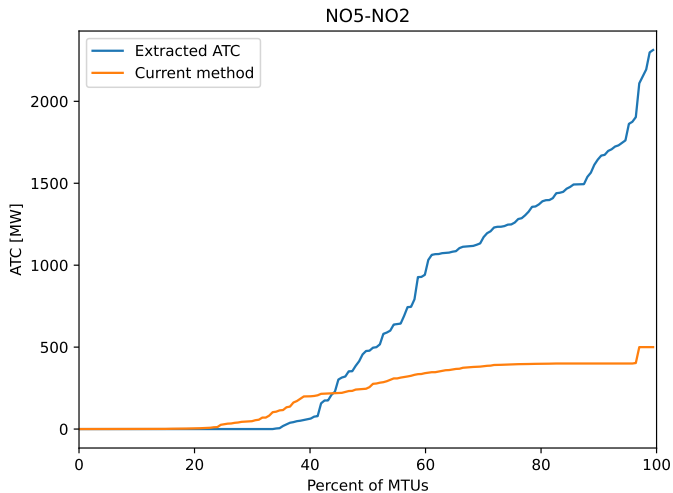




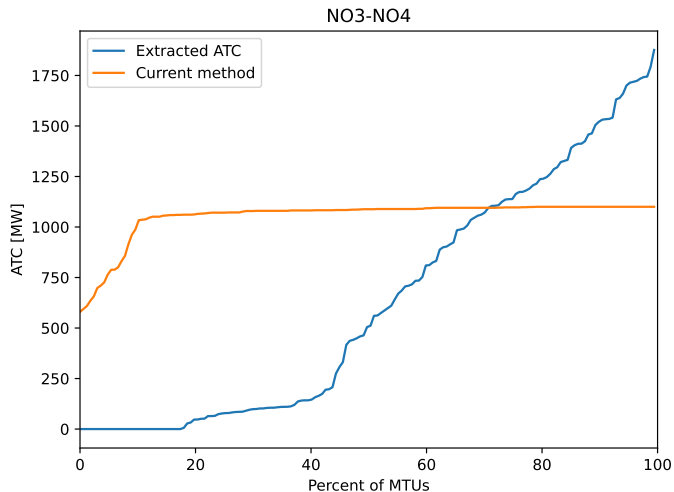
# NO2-NO5 ATC duration curves



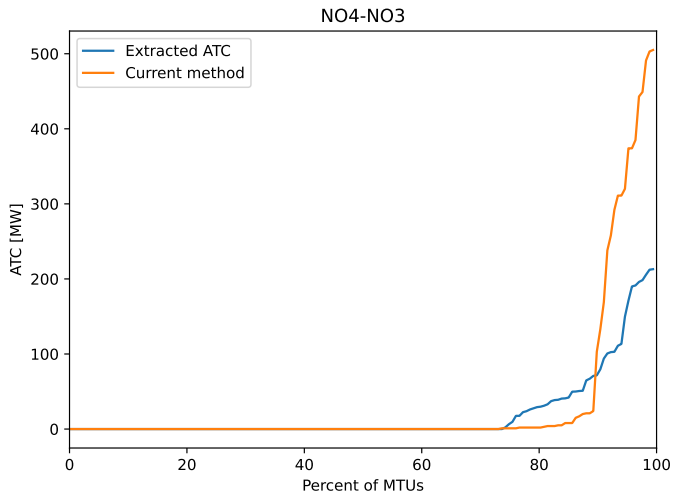
# NO5-NO2 ATC duration curves



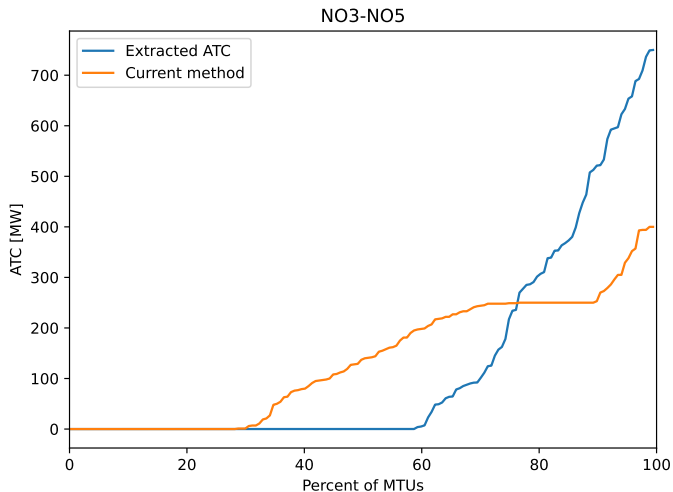
# NO3-NO4 ATC duration curves



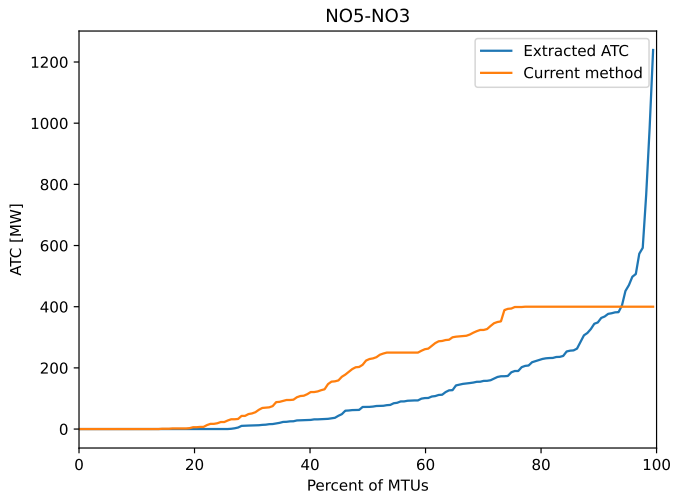
# NO4-NO3 ATC duration curves



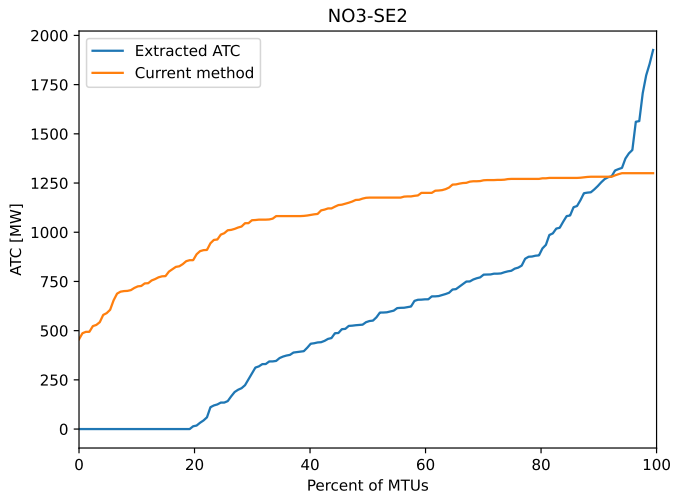
# NO3-NO5 ATC duration curves



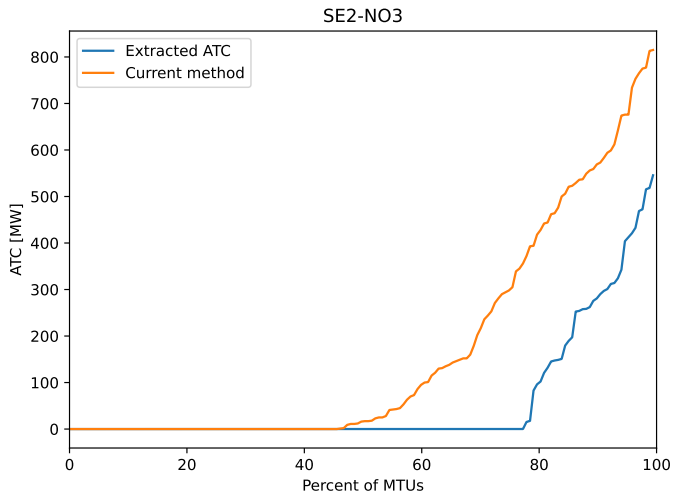
# NO5-NO3 ATC duration curves



# NO3-SE2 ATC duration curves

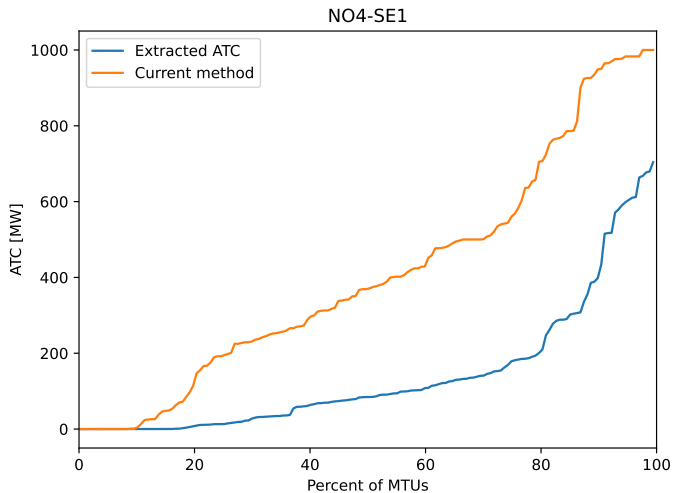


# SE2-NO3 ATC duration curves

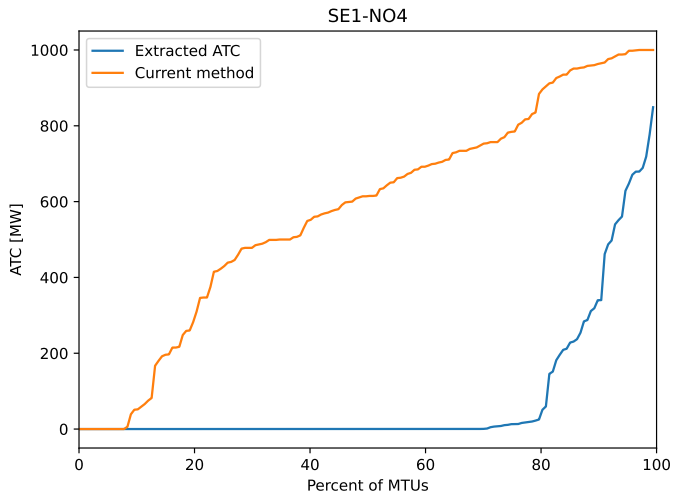




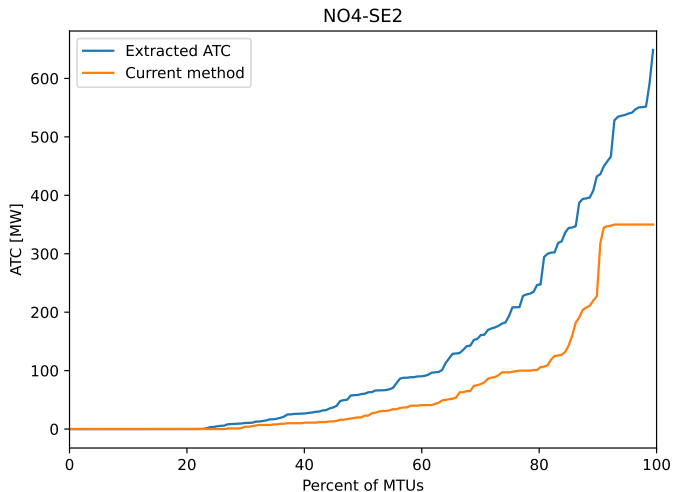
# NO4-SE1 ATC duration curves



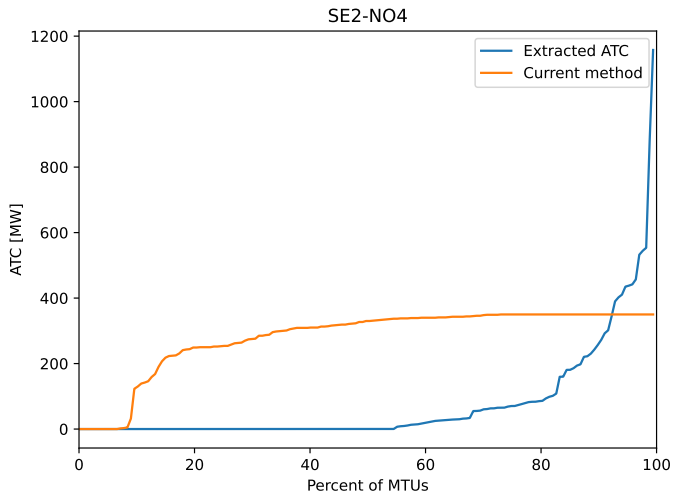
# SE1-NO4 ATC duration curves



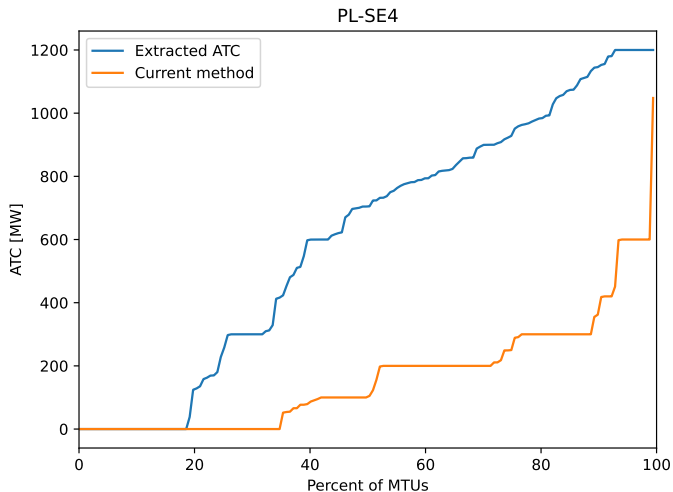
# NO4-SE2 ATC duration curves



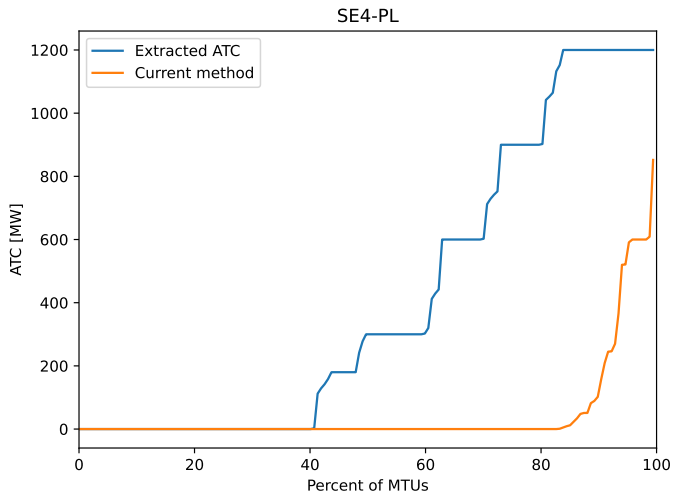
# SE2-NO4 ATC duration curves



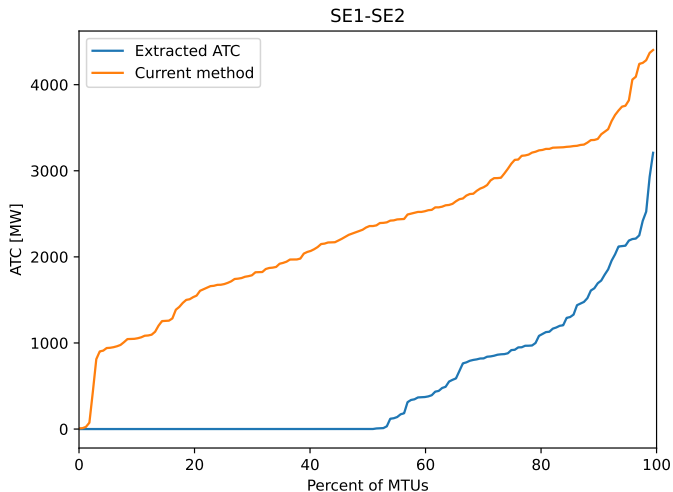
# PL-SE4 ATC duration curves



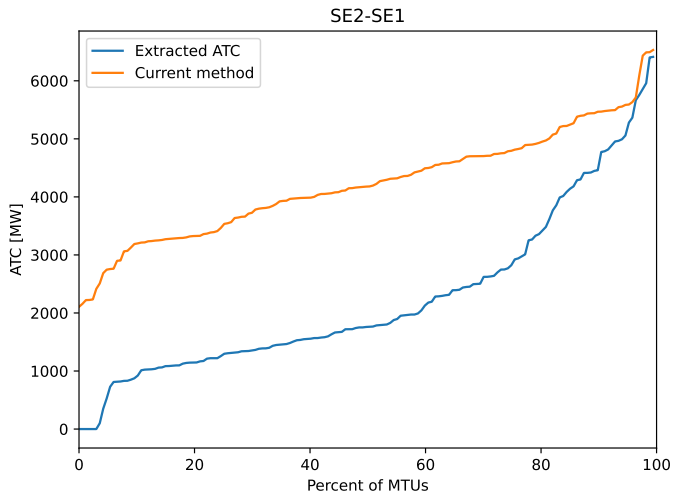
# SE4-PL ATC duration curves



# SE1-SE2 ATC duration curves

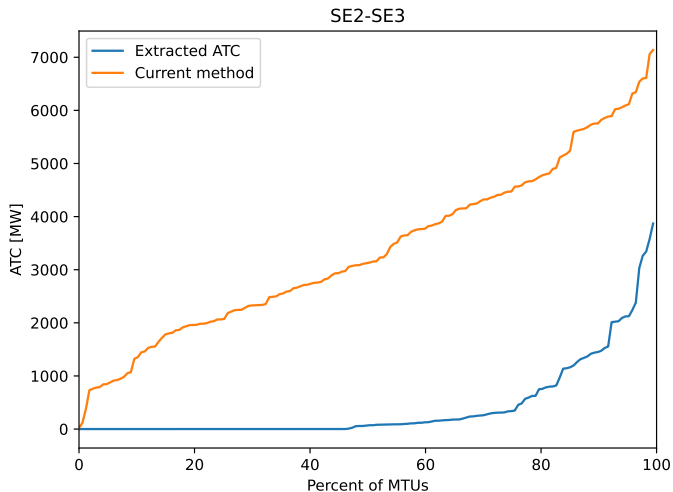


# SE2-SE1 ATC duration curves

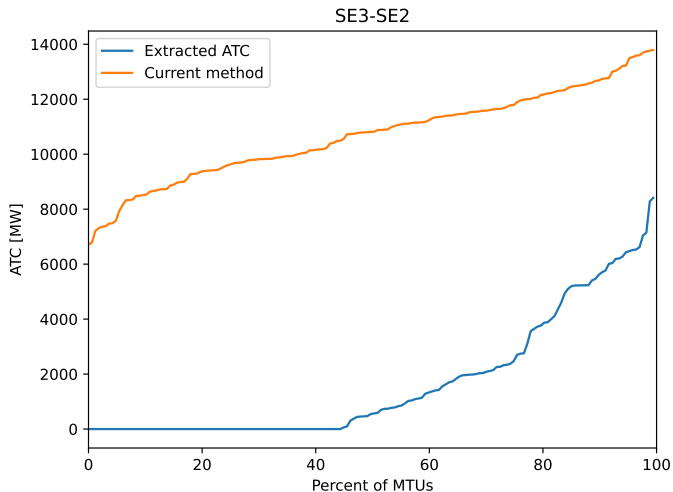




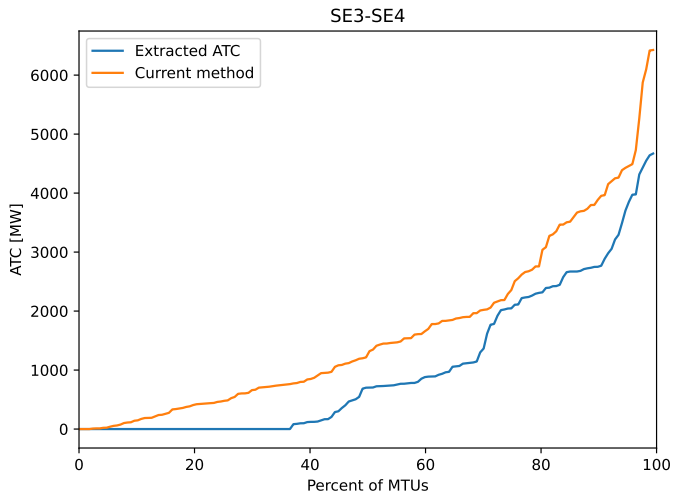
# SE2-SE3 ATC duration curves



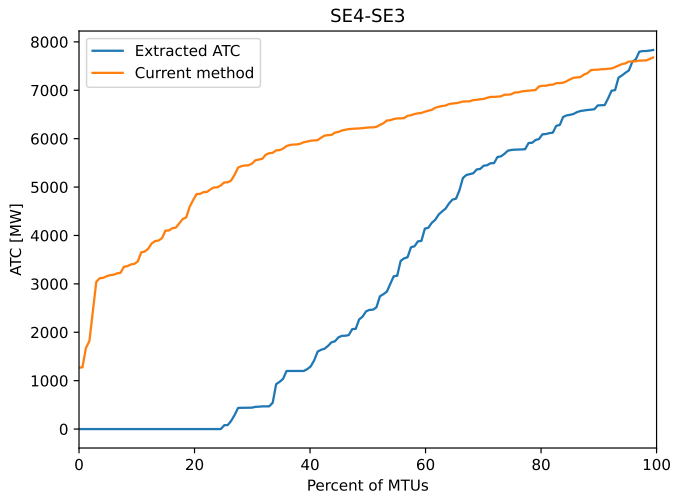
# SE3-SE2 ATC duration curves



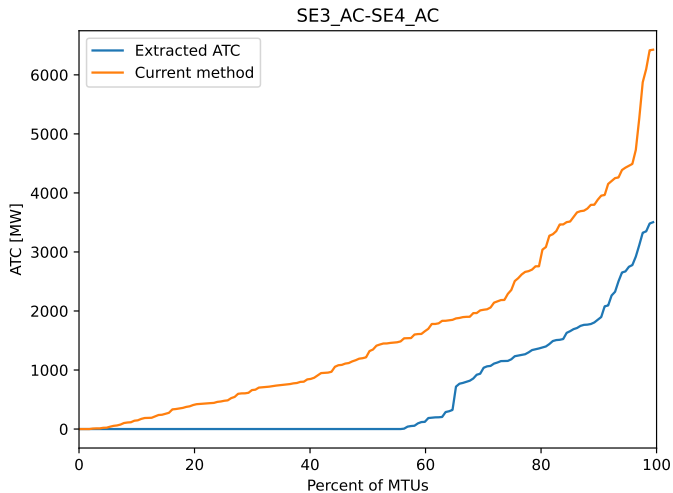
# SE3-SE4 ATC duration curves



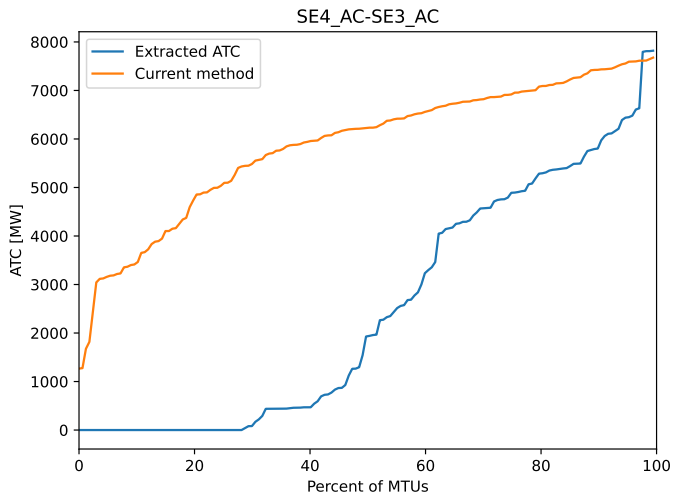
# SE4-SE3 ATC duration curves



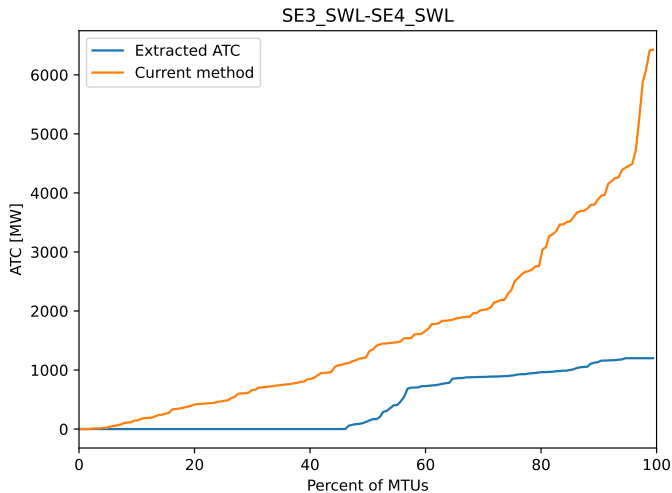
# SE3\_AC-SE4\_AC ATC duration curves



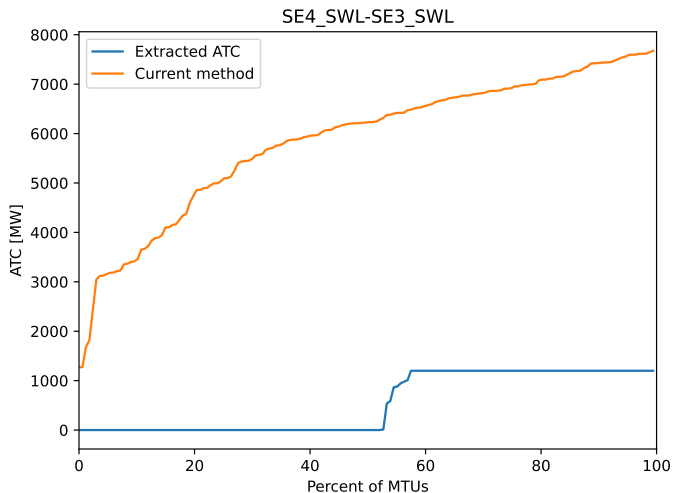
# SE4\_AC-SE3\_AC ATC duration curves



# SE3\_SWL-SE4\_SWL ATC duration curves

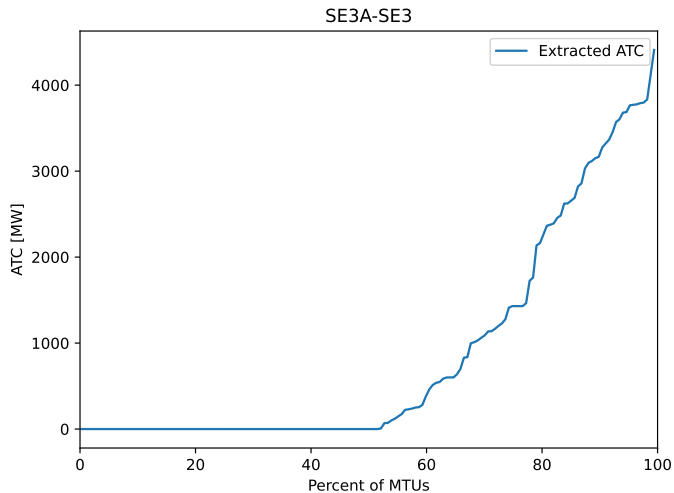


# SE4\_SWL-SE3\_SWL ATC duration curves





# SE3A-SE3 ATC duration curves



# SE3-SE3A ATC duration curves

