



Q1 2019 Bunker Adjustment Factor (BAF) Rates

We would like to inform that preliminary study regarding the new Bunker Adjustment Factor (BAF) calculation was completed. You can find main parameters regarding the calculation methodology, Bunker Adjustment Factor (BAF) levels and regional corridor information in the following.

Calculation of Q1 2019 BAF based on averages of fuel prices on Istanbul, Piraeus and Antwerp for November 2018. Same can be seen in the following charts in reference to November 2018 monthly trend on Addendum II. As previously communicated, starting from Q2 2019 BAF calculations, average levels of previous 3 months will be taken into consideration.

| NOVEMBER 2018 | USD / TON |
|------------------|-----------|
| IFO 380 ISTANBUL | \$467 |
| IFO 380 PIRAEUS | \$439 |
| IFO 380 ANTWERP | \$413 |

| NOVEMBER 2018 | USD / TON |
|-------------------------|-----------|
| IFO 380 IST+PIR AVERAGE | \$453 |
| IFO 380 ANT | \$413 |

Among all Mediterranean and Black Sea ports, we use average of Istanbul and Piraeus IFO 380 fuel price levels on our calculation of BAF. For any corridors linked to West Africa and North Europe region, we consider Antwerp IFO 380 price levels.

For identifying the trade corridors on respective countries, we have included below chart for your easy reference. Addendum that shows the port and country information with regional details was also included.

| COUNTRY | COUNTRY CODE | REGION |
|-------------|--------------|--------|
| BELGIUM | BE | NEUR |
| BULGARIA | BG | BSE |
| IVORY COAST | CI | WAF |
| GERMANY | DE | NEUR |
| ALGER | DZ | NAF |
| EGYPT | EG | EMED |
| SPAIN | ES | WMED |
| FRANCE | FR | WMED |
| GEORGIA | GE | BSE |
| GHANA | GH | WAF |
| GREECE | GR | EMED |
| ISRAEL | IL | EMED |
| ITALY | IT | WMED |
| LEBANON | LE | EMED |
| LIBYA | LY | NAF |
| MOROCCO | MA | MAROC |
| MAURITANIA | MR | WAF |
| NIGERIA | NG | WAF |
| PORTUGAL | PT | WMED |
| ROMANIA | RO | BSE |
| RUSSIA | RU | BSE |
| SENEGAL | SN | WAF |
| SYRIA | SY | EMED |
| TUNIS | TU | NAF |
| TURKEY | TR | EMED |
| UKRAINE | UK | BSE |
| BENIN | BJ | WAF |

Q1 2019 BUNKER ADJUSTMENT FACTOR (BAF) RATES

| REGION TO REGION | IFO 380 | Trade Driver | BAF/TEU | BAF/TEU |
|------------------|---------|--------------|---------|---------|
| BSE TO EMED | 453 | 0,33 | \$150 | € 134 |
| BSE TO MAROC | 453 | 0,43 | \$196 | € 175 |
| BSE TO NAF | 453 | 0,43 | \$196 | € 175 |
| BSE TO NEUR | 413 | 0,54 | \$225 | € 201 |
| BSE TO WAF | 413 | 1,21 | \$500 | € 446 |
| BSE TO WMED | 453 | 0,44 | \$200 | € 179 |
| EMED NB (INTRA) | 453 | 0,10 | \$45 | € 40 |
| EMED SB | 453 | 0,18 | \$80 | € 71 |
| EMED TO BSE | 453 | 0,25 | \$115 | € 103 |
| EMED TO MAROC | 453 | 0,38 | \$171 | € 153 |
| EMED TO NAF | 453 | 0,38 | \$171 | € 153 |
| EMED TO NEUR | 413 | 0,38 | \$155 | € 138 |
| EMED TO WAF | 413 | 1,04 | \$430 | € 384 |
| EMED TO WMED | 453 | 0,29 | \$130 | € 116 |
| INTRA BSE | 453 | 0,15 | \$70 | € 63 |
| INTRA WAF | 413 | 0,06 | \$25 | € 22 |
| MAROC TO BSE | 453 | 0,15 | \$70 | € 63 |
| MAROC TO EMED | 453 | 0,18 | \$80 | € 71 |
| MAROC TO WAF | 413 | 0,80 | \$330 | € 295 |
| MAROC TO WMED | 453 | 0,29 | \$130 | € 116 |
| NAF TO BSE | 453 | 0,15 | \$70 | € 63 |
| NAF TO EMED | 453 | 0,18 | \$80 | € 71 |
| NAF TO NEUR | 413 | 0,38 | \$155 | € 138 |
| NAF TO WAF | 413 | 1,04 | \$430 | € 384 |
| NAF TO WMED | 453 | 0,29 | \$130 | € 116 |
| NEUR TO BSE | 413 | 0,62 | \$255 | € 228 |
| NEUR TO EMED | 413 | 0,45 | \$185 | € 165 |
| NEUR TO MAROC | 413 | 0,45 | \$185 | € 165 |
| NEUR TO NAF | 413 | 0,75 | \$311 | € 278 |
| NEUR TO WAF | 413 | 0,80 | \$330 | € 295 |
| NEUR TO WMED | 413 | 0,45 | \$185 | € 165 |
| WAF TO BSE | 413 | 0,62 | \$255 | € 228 |
| WAF TO EMED | 413 | 0,45 | \$185 | € 165 |
| WAF TO MAROC | 413 | 0,45 | \$185 | € 165 |
| WAF TO NAF | 413 | 0,75 | \$311 | € 278 |
| WAF TO NEUR | 413 | 0,06 | \$25 | € 22 |
| WAF TO WMED | 413 | 0,45 | \$185 | € 165 |
| WMED TO BSE | 453 | 0,51 | \$230 | € 205 |
| WMED TO EMED | 453 | 0,35 | \$160 | € 143 |
| WMED TO MAROC | 453 | 0,22 | \$100 | € 90 |
| WMED TO NAF | 453 | 0,22 | \$100 | € 90 |
| WMED TO NEUR | 413 | 0,38 | \$155 | € 138 |
| WMED TO WAF | 413 | 1,04 | \$430 | € 384 |
| WMED WB (INTRA) | 453 | 0,29 | \$130 | € 116 |

ADDENDUM

REGION-COUNTRY-PORT LIST

| POL Region | POL Country | POL |
|-------------------|--------------------|------------|
| BSE | BG | BGBOJ |
| BSE | BG | BGVAR |
| BSE | GE | GEPTI |
| BSE | RO | ROCND |
| BSE | RO | ROSOC |
| BSE | RU | RUNOV |
| BSE | RU | RUNVS |
| BSE | UA | UAODS |
| EMED | EG | EGALY |
| EMED | EG | EGDAM |
| EMED | EG | EGEDK |
| EMED | EG | EGPSD |
| EMED | GR | GRPIR |
| EMED | GR | GRSKG |
| EMED | IL | ILASH |
| EMED | IL | ILHFA |
| EMED | LB | LBBEY |
| EMED | SY | SYLTK |
| EMED | TR | TRAKC |
| EMED | TR | TRALI |
| EMED | TR | TRAYT |
| EMED | TR | TREVV |
| EMED | TR | TRGEM |
| EMED | TR | TRISK |
| EMED | TR | TRIZM |
| EMED | TR | TRKCO |
| EMED | TR | TRLMA |
| EMED | TR | TRMER |
| EMED | TR | TRMRP |
| EMED | TR | TRSSX |
| EMED | TR | TRYPO |
| WMED | IT | ITAOI |
| WMED | IT | ITGOA |
| WMED | IT | ITLIV |
| WMED | IT | ITRAN |
| WMED | IT | ITSAL |
| WMED | IT | ITSPE |
| WMED | IT | ITVCE |
| WMED | IT | ITVDL |

| POL Region | POL Country | POL |
|-------------------|--------------------|------------|
| WMED | PT | PTLEI |
| WMED | PT | PTLIS |
| WMED | PT | PTSET |
| WMED | SI | SIKOP |
| MAROC | MA | MAAGA |
| MAROC | MA | MACAS |
| MAROC | MA | MATNG |
| NAF | DZ | DZAAE |
| NAF | DZ | DZALG |
| NAF | DZ | DZAZW |
| NAF | DZ | DZBJA |
| NAF | DZ | DZORN |
| NAF | DZ | DZSKI |
| NAF | LY | LYKHO |
| NAF | LY | LYMRA |
| NAF | TN | TNBIZ |
| NAF | TN | TNSFA |
| NAF | TN | TNSUS |
| NAF | TN | TNTUN |
| NEUR | BE | BEANR |
| NEUR | DE | DEHAM |
| NEUR | FR | FRDKK |
| NEUR | NL | NLRMT |
| NEUR | NL | NLAMMS |
| WAF | BJ | BJCOO |
| WAF | CI | CIABJ |
| WAF | GH | GHTEM |
| WAF | NG | NGAPP |
| WAF | NG | NGTIN |
| WAF | SN | SNDKR |
| WMED | ES | ESALG |
| WMED | ES | ESBCN |
| WMED | ES | ESBIO |
| WMED | ES | ESCAS |
| WMED | ES | ESLPA |
| WMED | ES | ESVGO |
| WMED | ES | ESVLC |
| WMED | FR | FRFOS |
| WMED | FR | FRMRS |

ADDENDUM II**IFO 380 PRICE TREND ON ISTANBUL, PIRAEUS AND ANTWERP**

| | ISTANBUL | PIRAEUS | ANTWERP |
|----------------|------------------------|------------------------|------------------------|
| DATE | IFO 380/ton USD | IFO 380/ton USD | IFO 380/ton USD |
| 01.11.2018 | 496,0 | 480,0 | 445,0 |
| 02.11.2018 | 491,0 | 472,0 | 440,0 |
| 05.11.2018 | 483,0 | 474,0 | 442,0 |
| 06.11.2018 | 495,0 | 476,0 | 435,0 |
| 07.11.2018 | 487,0 | 460,0 | 444,0 |
| 08.11.2018 | 484,0 | 455,0 | 439,0 |
| 09.11.2018 | 480,0 | 453,0 | 430,0 |
| 12.11.2018 | 475,0 | 450,0 | 432,0 |
| 13.11.2018 | 465,0 | 447,0 | 421,0 |
| 14.11.2018 | 467,0 | 430,0 | 408,0 |
| 15.11.2018 | 459,0 | 428,0 | 409,0 |
| 16.11.2018 | 459,0 | 430,0 | 407,0 |
| 19.11.2018 | 465,0 | 429,0 | 404,0 |
| 20.11.2018 | 457,0 | 427,0 | 393,0 |
| 21.11.2018 | 455,0 | 418,0 | 395,0 |
| 22.11.2018 | 455,0 | 420,0 | 388,0 |
| 23.11.2018 | 445,0 | 405,0 | 371,0 |
| 26.11.2018 | 431,0 | 400,0 | 371,0 |
| 27.11.2018 | 435,0 | 402,0 | 372,0 |
| AVERAGE | 467,0 | 439,0 | 413,0 |