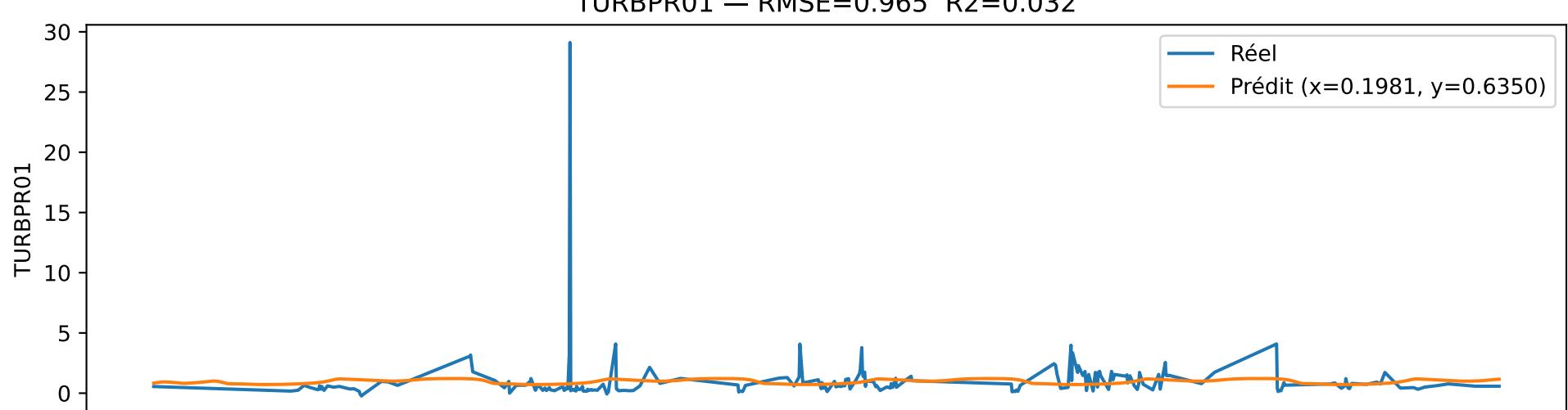
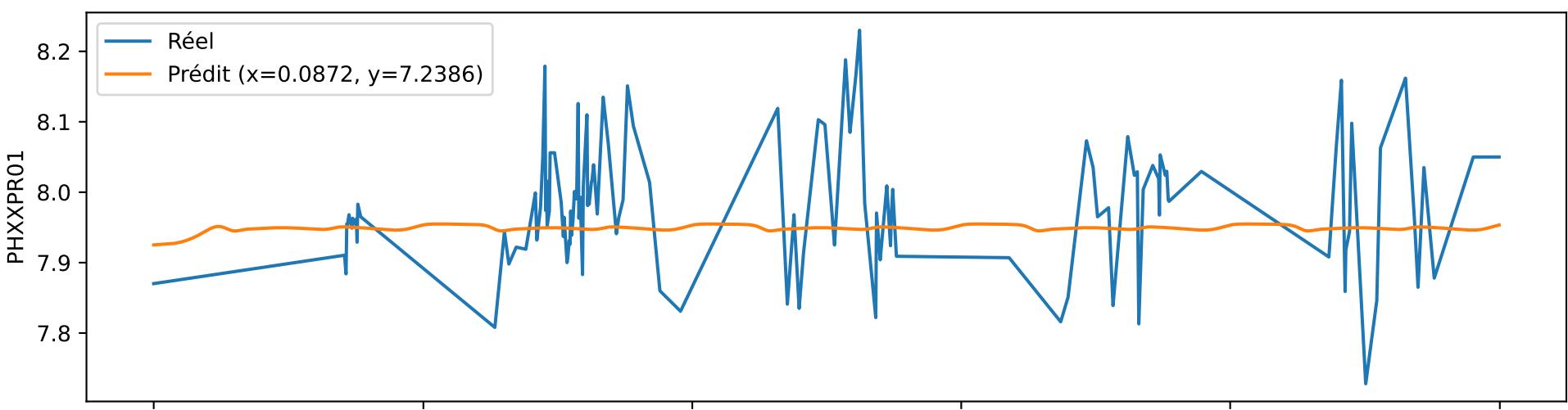


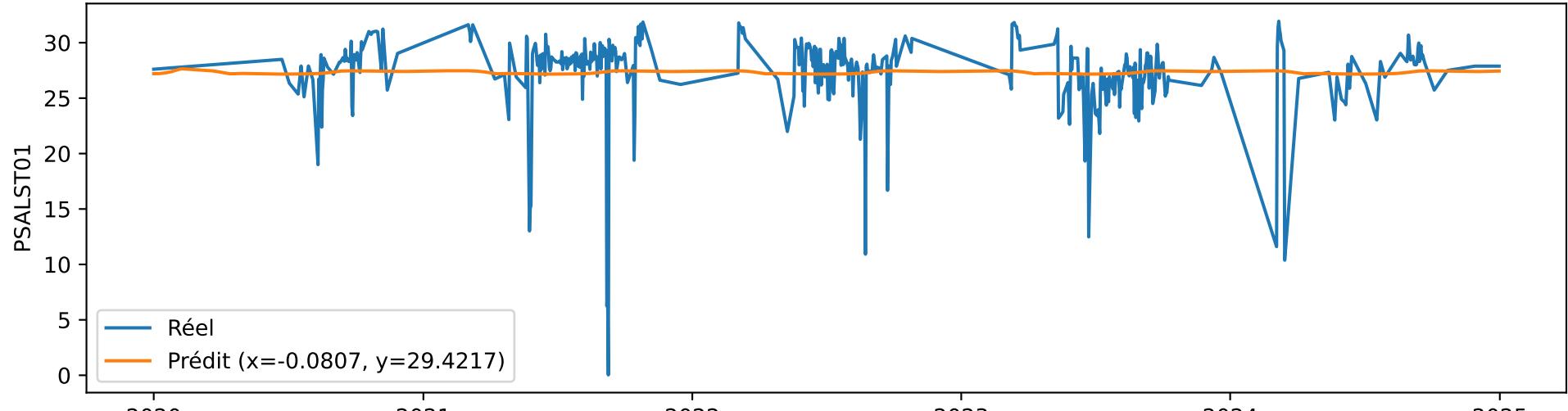
TURBPR01 — RMSE=0.965 R2=0.032



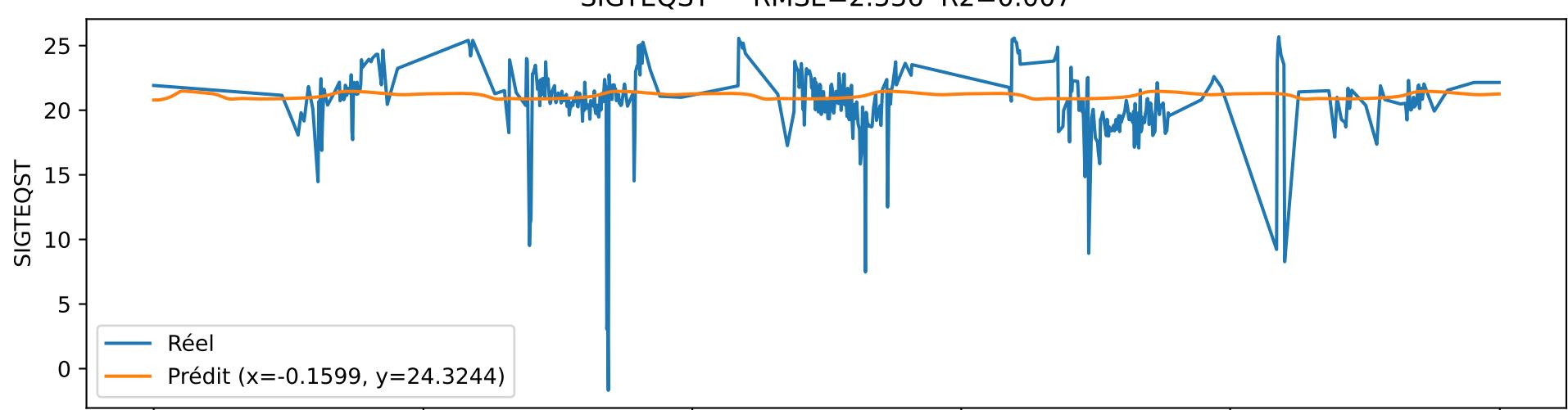
PHXXPR01 — RMSE=0.080 R2=0.003



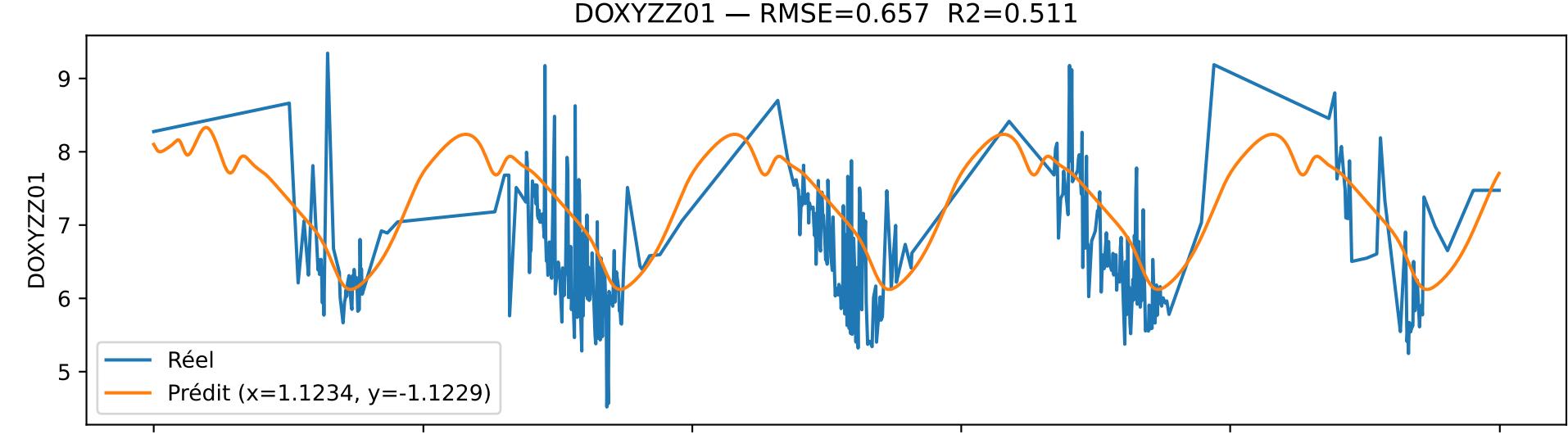
PSALST01 — RMSE=3.075 R2=0.002



SIGTEQST — RMSE=2.536 R2=0.007



DOXYZZ01 — RMSE=0.657 R2=0.511



## Résultats LSTM multivarié (après OLS)

Période entraînement : 2000-03-01 -> 2019-12-31

Période test : 2020-01-01 -> 2024-12-31

Metrics par variable (après transformation optimale) :

- CPHLPR01: RMSE=2.1512, R2=0.0093 ( $x=0.208829$ ,  $y=0.619637$ ,  $R2_{opt}=0.009348$ )
- TURBPR01: RMSE=0.9646, R2=0.0325 ( $x=0.198124$ ,  $y=0.635023$ ,  $R2_{opt}=0.032460$ )
- PHXXPR01: RMSE=0.0797, R2=0.0034 ( $x=0.087194$ ,  $y=7.238574$ ,  $R2_{opt}=0.003392$ )
- PSALST01: RMSE=3.0745, R2=0.0017 ( $x=-0.080658$ ,  $y=29.421666$ ,  $R2_{opt}=0.001677$ )
- SIGTEQST: RMSE=2.5356, R2=0.0065 ( $x=-0.159901$ ,  $y=24.324428$ ,  $R2_{opt}=0.006505$ )
- DOXYZZ01: RMSE=0.6572, R2=0.5111 ( $x=1.123416$ ,  $y=-1.122879$ ,  $R2_{opt}=0.511122$ )