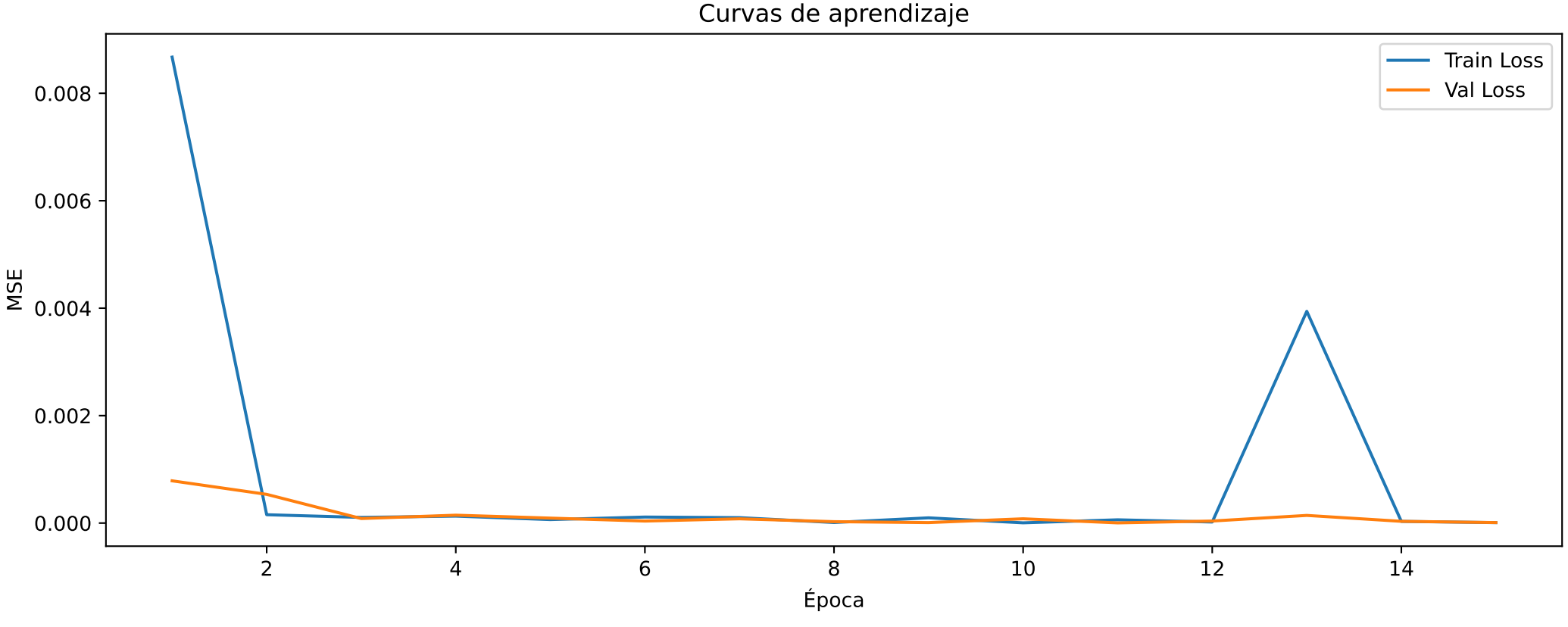
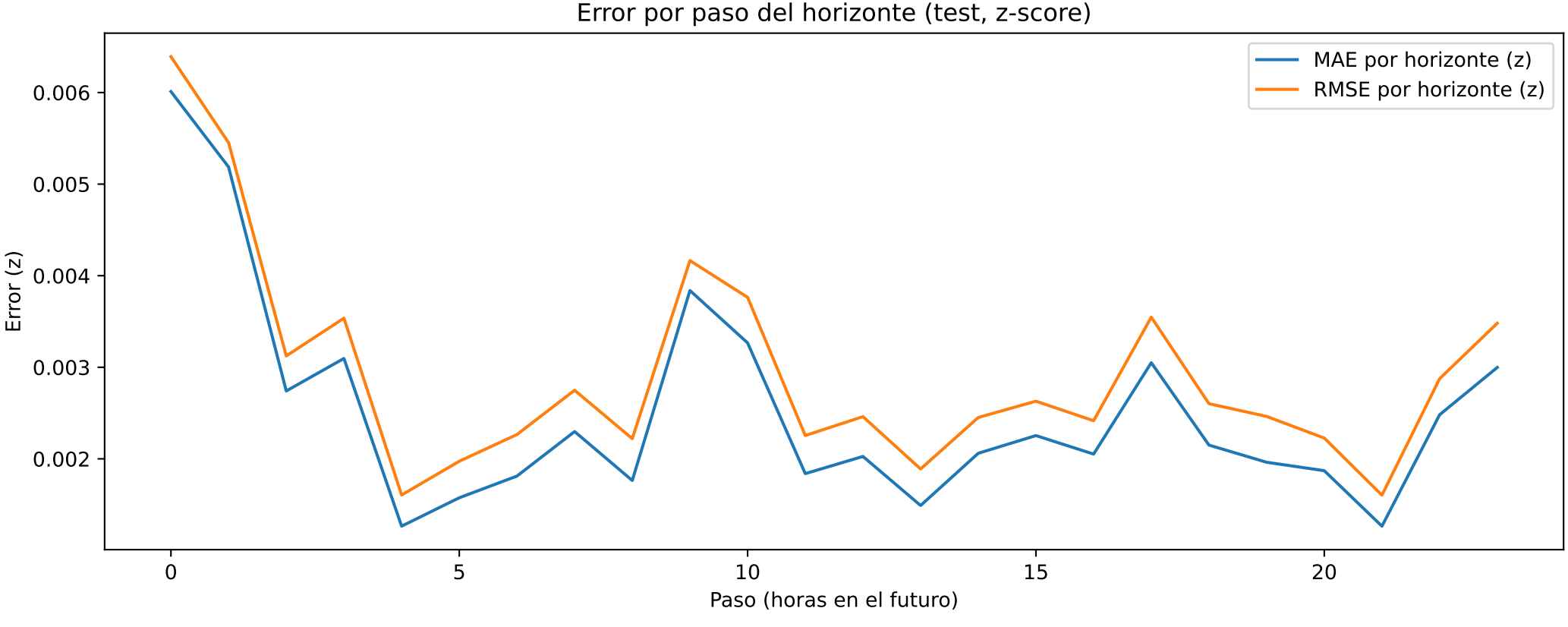
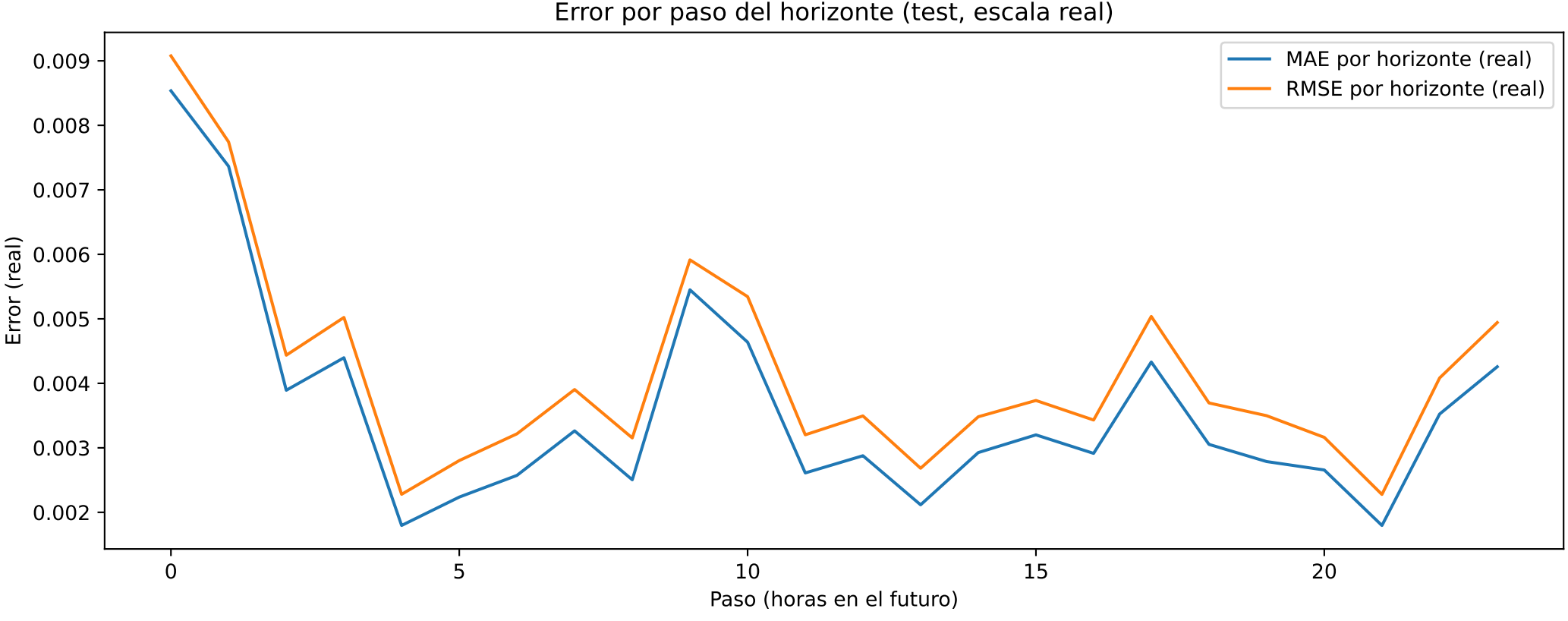
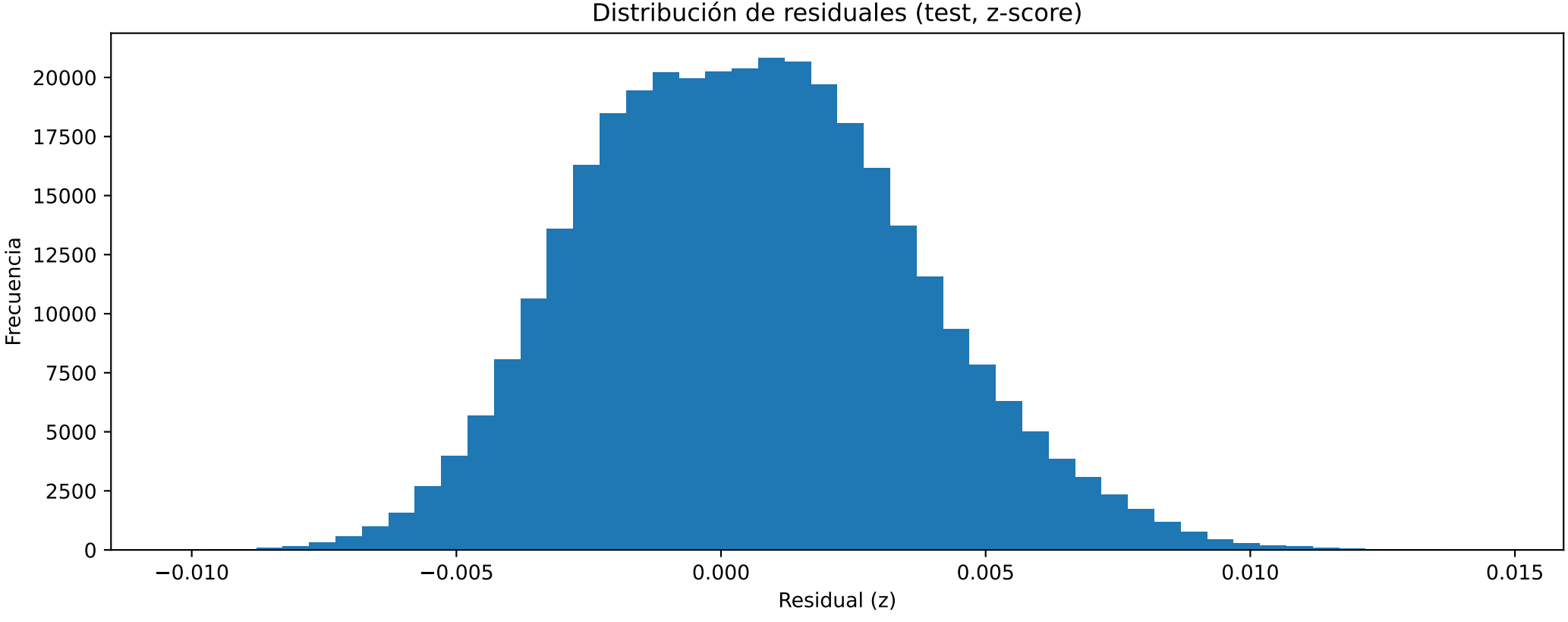
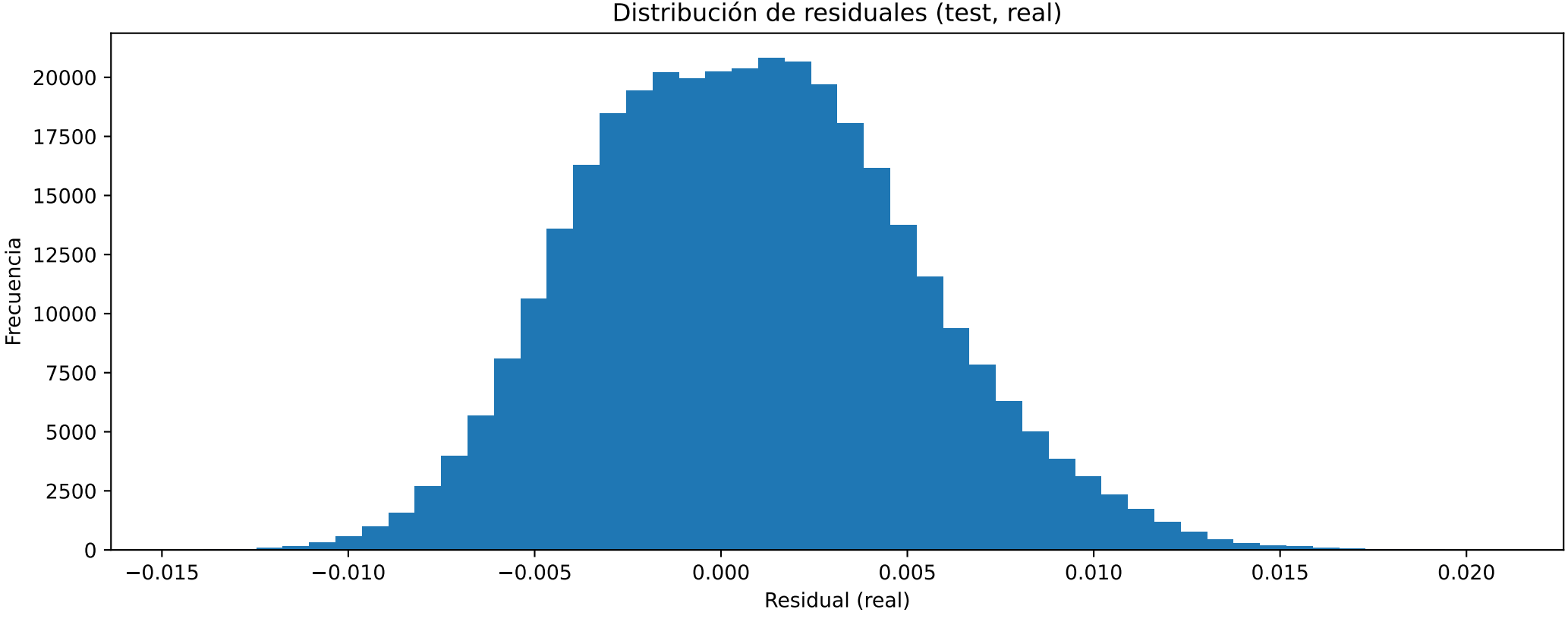
N-BEATS Multivariable — Resumen
Archivo: data/weatherHistory_normalize.csv
Tiempo: Formatted Date | Objetivo: Temperature (C)_normalized
Features (15): ['h_sin', 'h_cos', 'dow_sin', 'dow_cos', 'doy_sin', 'doy_cos', 'Precip Type_normalized', 'Temperatur
Puntos totales: 96453
Split → Train: 67517 | Val: 14468 | Test: 14468
Ventana: H=336 L=24 input_size=5040
Métricas test → MSE: 0.000010 | MAE: 0.0025 | RMSE: 0.0031

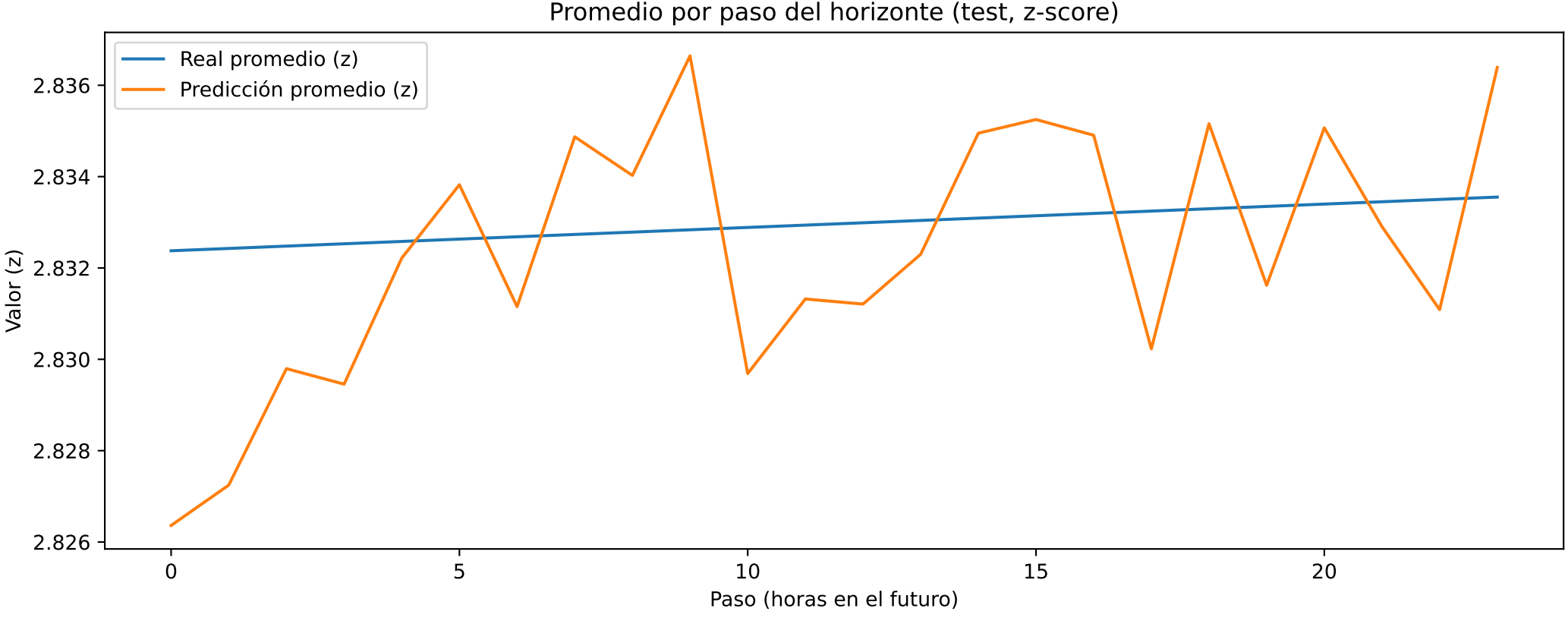

Curvas de aprendizaje
Train Loss
Val Loss
MSE
0.008
0.006
0.004
0.002
0.000
2
4
6
8
10
12
14
Época

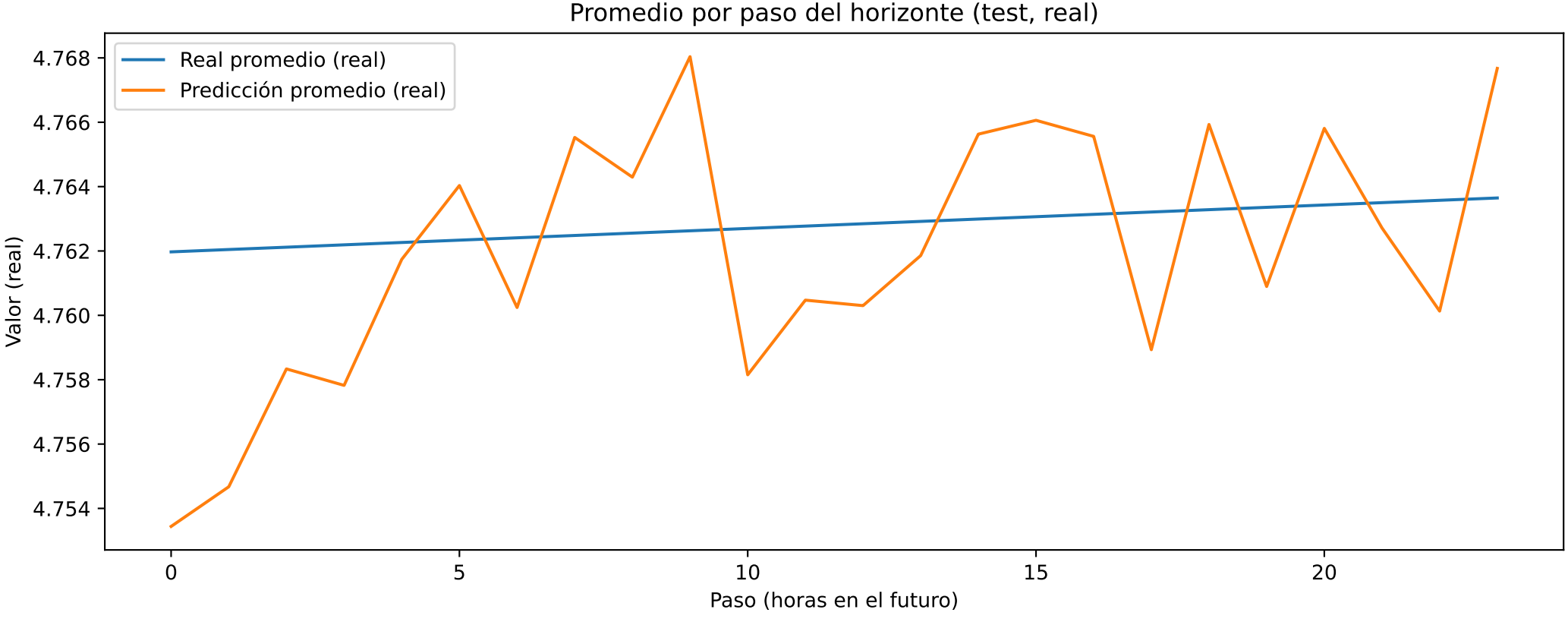

Error por paso del horizonte (test, z-score)
MAE por horizonte (z)
RMSE por horizonte (z)
Error (z)
0.006
0.005
0.004
0.003
0.002
0
5
10
15
20
Paso (horas en el futuro)


Error por paso del horizonte (test, escala real)
MAE por horizonte (real)
RMSE por horizonte (real)
Error (real)
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0
5
10
15
20
Paso (horas en el futuro)


Distribución de residuales (test, z-score)
Frecuencia
20000
17500
15000
12500
10000
7500
5000
2500
0
−0.010
−0.005
0.000
0.005
0.010
0.015
Residual (z)

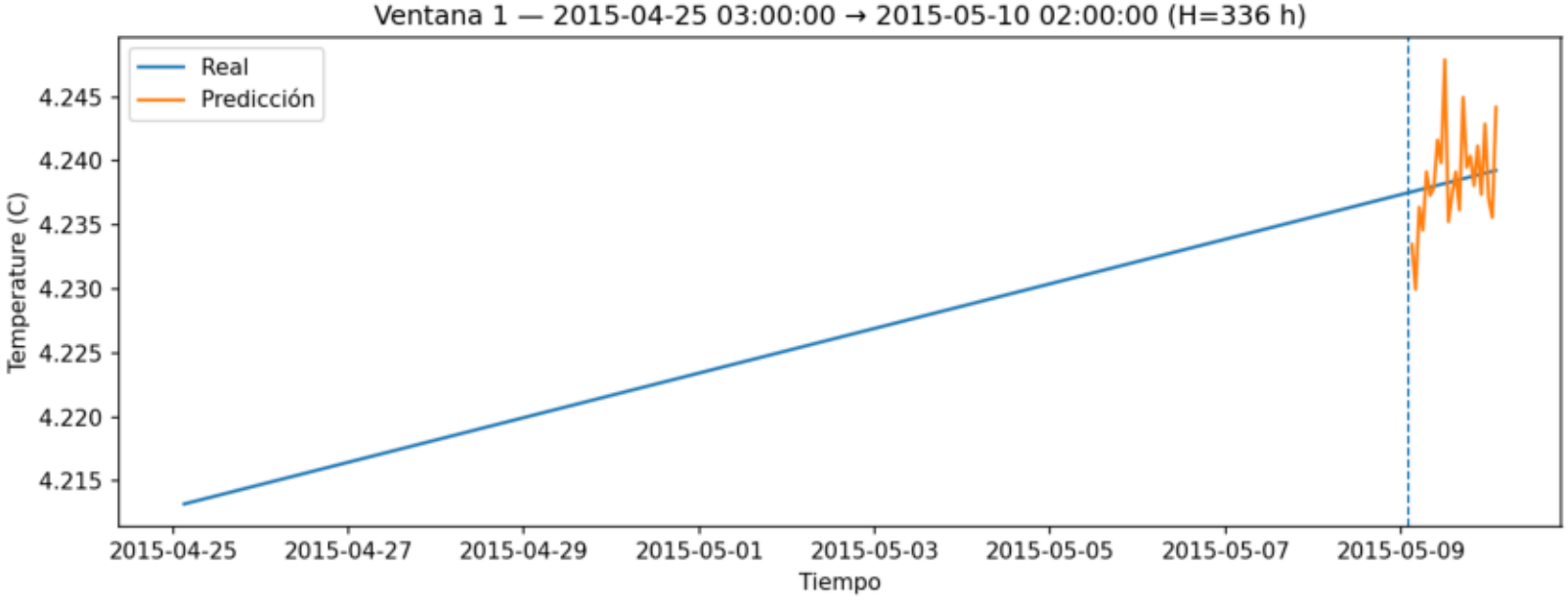

Distribución de residuales (test, real)
Frecuencia
20000
17500
15000
12500
10000
7500
5000
2500
0
−0.015
−0.010
−0.005
0.000
0.005
0.010
0.015
0.020
Residual (real)

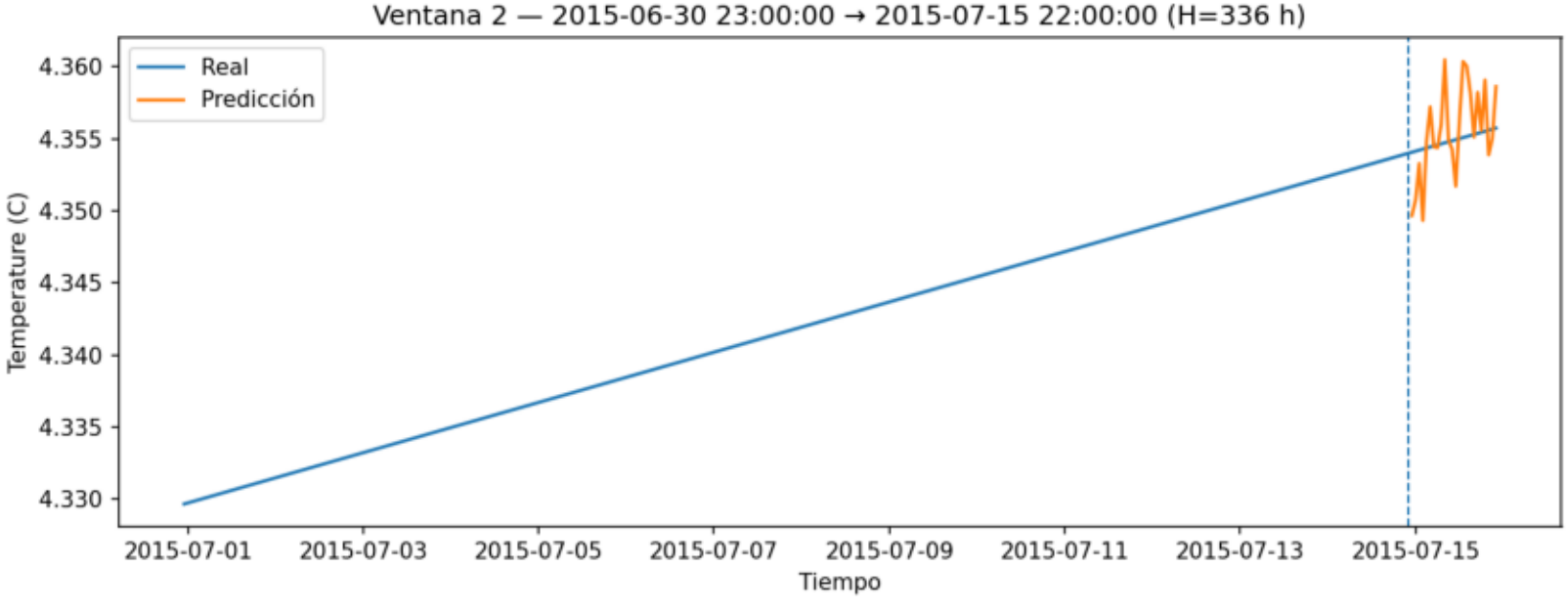

Promedio por paso del horizonte (test, z-score)
Real promedio (z)
Predicción promedio (z)
Valor (z)
2.836
2.834
2.832
2.830
2.828
2.826
0
5
10
15
20
Paso (horas en el futuro)

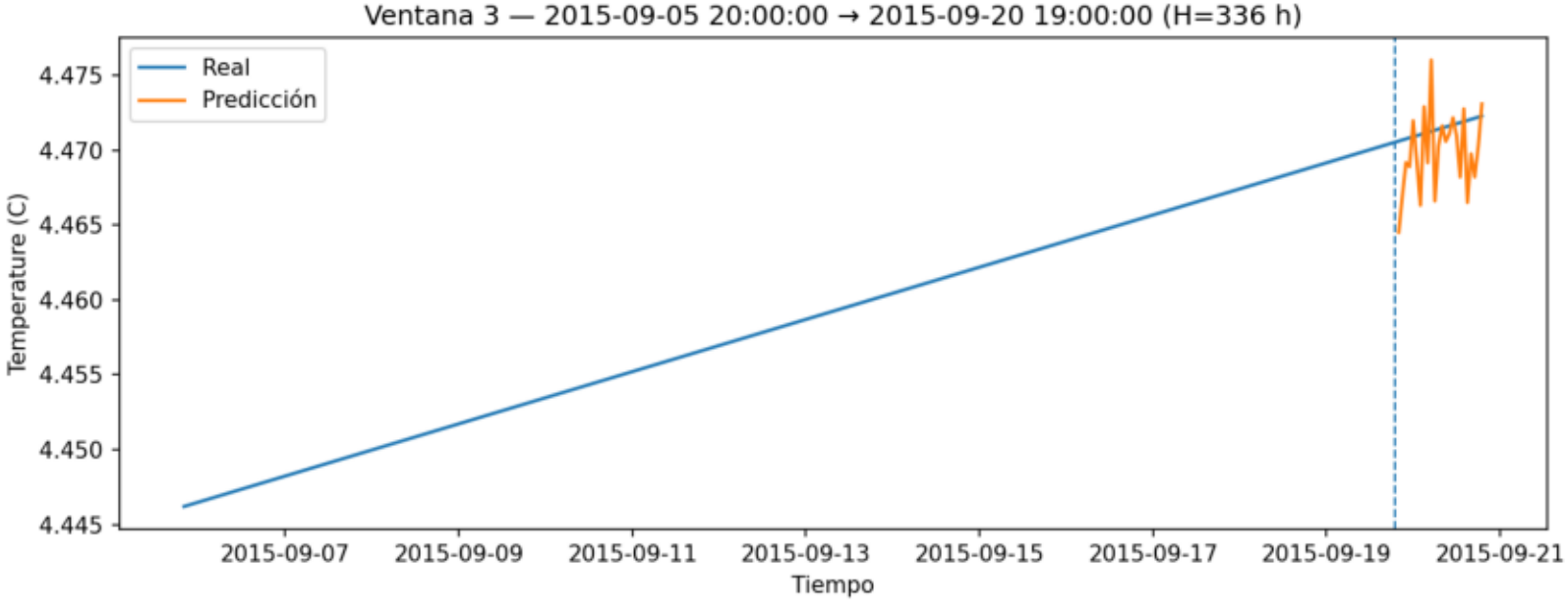

Promedio por paso del horizonte (test, real)
Real promedio (real)
Predicción promedio (real)
Valor (real)
4.768
4.766
4.764
4.762
4.760
4.758
4.756
4.754
0
5
10
15
20
Paso (horas en el futuro)

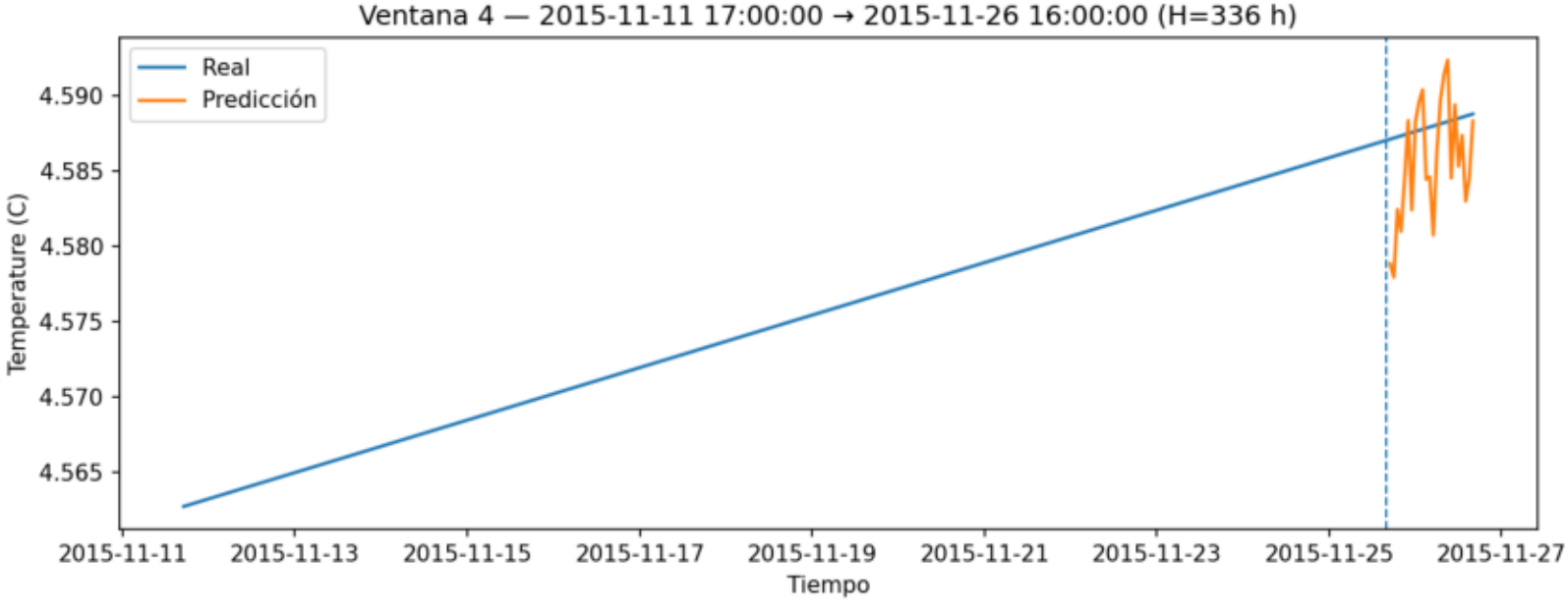
Importancia de variables (TOP-K)

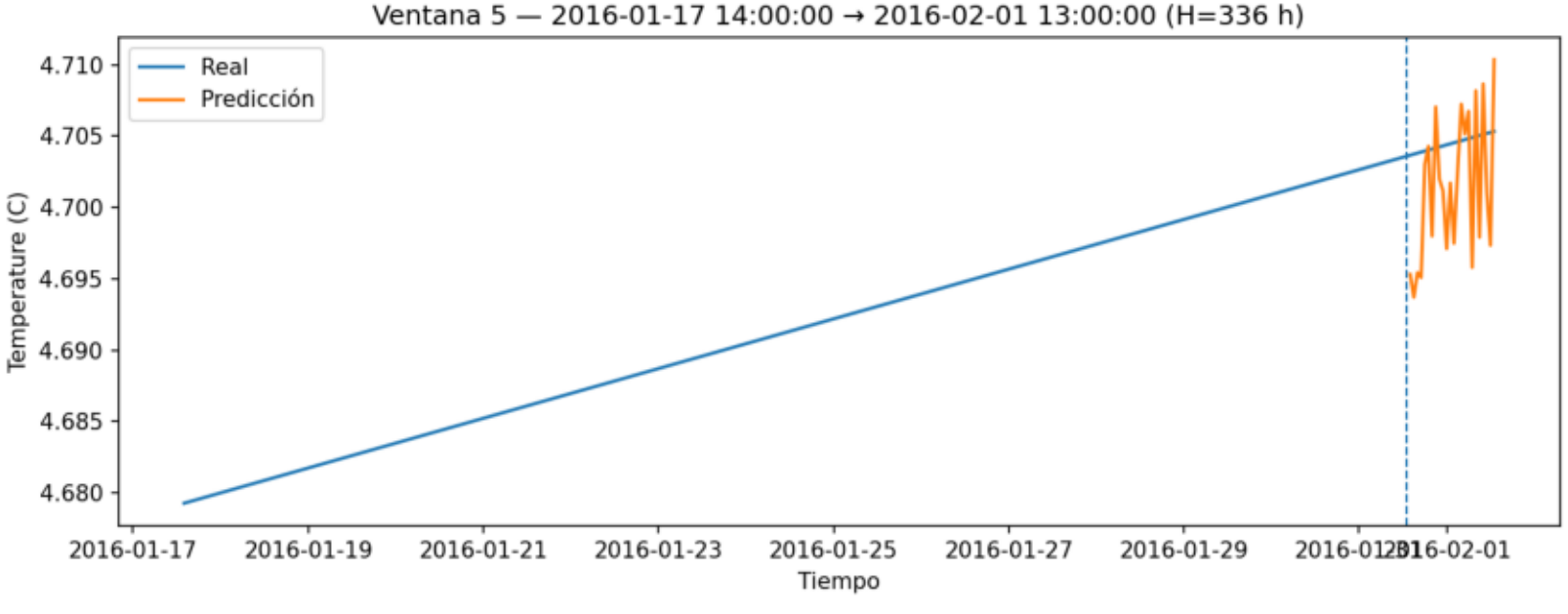
	ΔMSE	ΔMSE %
erature (C)_normalized	0.092095	2685193.3683
nary_Partly Cloudy	7e-06	195.475941
nary_Overcast	5e-06	152.757488
nary_Clear	4e-06	127.615898
nary_Mostly Cloudy	4e-06	106.576601
nary_Foggy	3e-06	77.666304
	1e-06	17.760185
	1e-06	17.738435
cos	0.0	10.405438
sin	0.0	10.310423
Type_normalized	0.0	3.779184
os	0.0	1.716028
bearing_cos	0.0	0.76513
in	0.0	0.230936
bearing_sin	0.0	0.079777

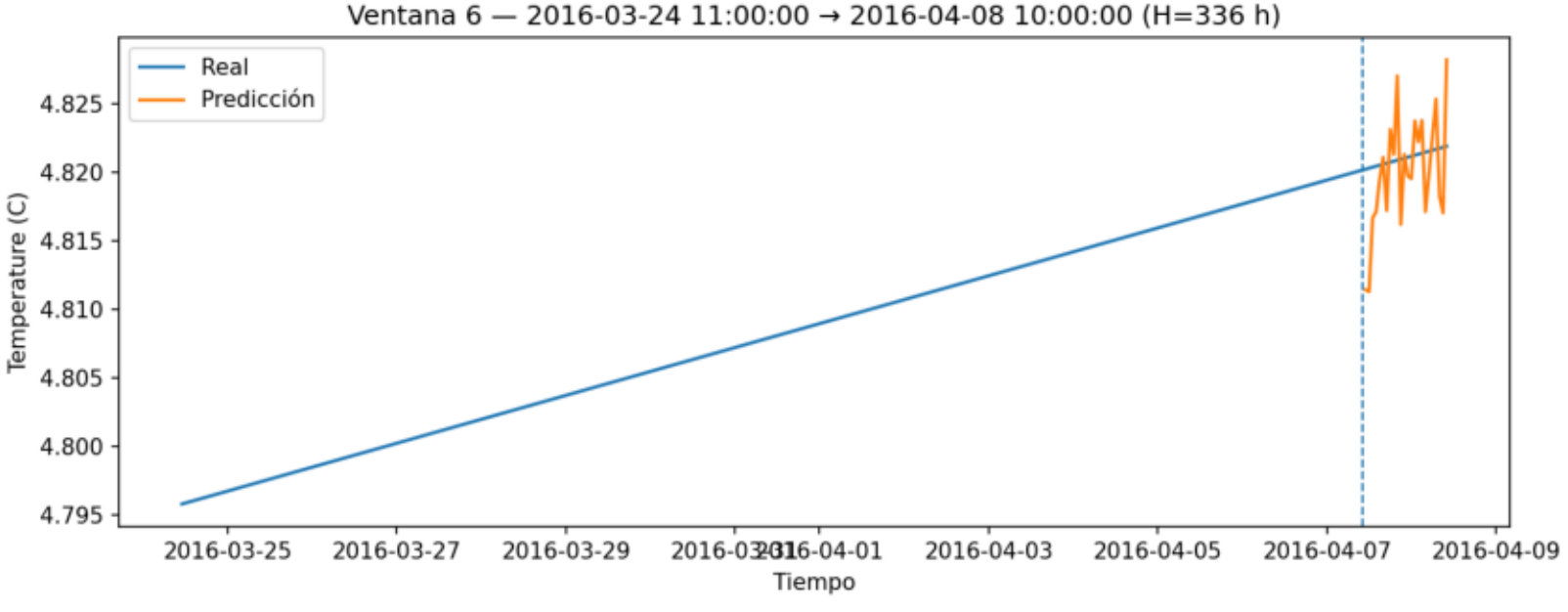

Ventana 1 — 2015-04-25 03:00:00 → 2015-05-10 02:00:00 (H=336 h)
Real
Predicción
Temperature (C)
4.245
4.240
4.235
4.230
4.225
4.220
4.215
2015-04-25
2015-04-27
2015-04-29
2015-05-01
2015-05-03
2015-05-05
2015-05-07
2015-05-09
Tiempo

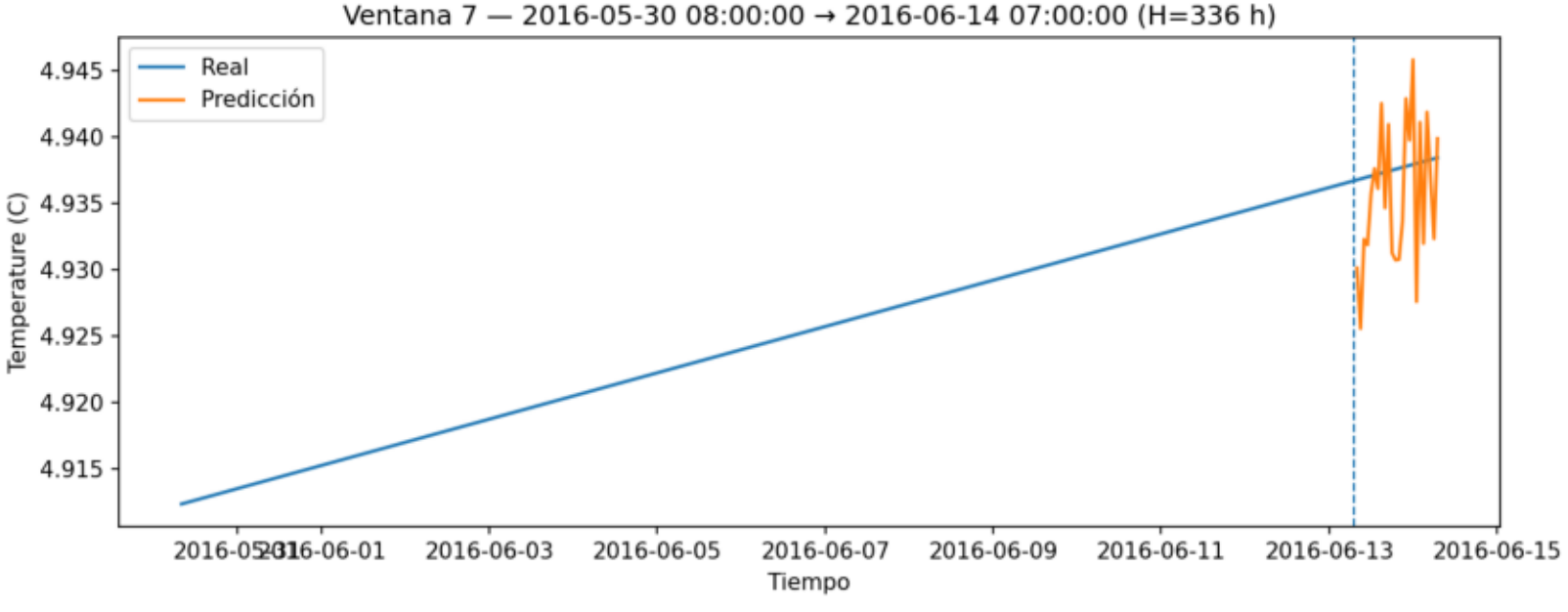

Ventana 2 — 2015-06-30 23:00:00 → 2015-07-15 22:00:00 (H=336 h)
Real
Predicción
Temperature (C)
4.360
4.355
4.350
4.345
4.340
4.335
4.330
2015-07-01
2015-07-03
2015-07-05
2015-07-07
2015-07-09
2015-07-11
2015-07-13
2015-07-15
Tiempo

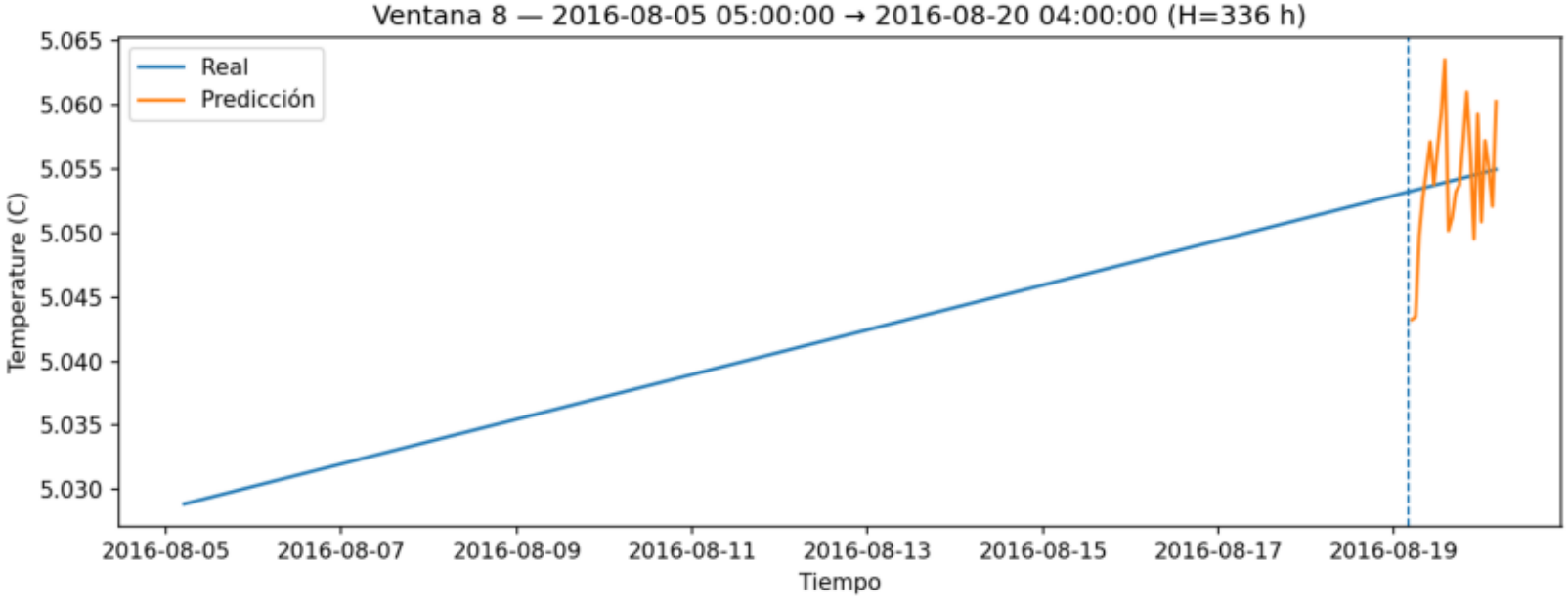

Ventana 3 — 2015-09-05 20:00:00 → 2015-09-20 19:00:00 (H=336 h)
Real
Predicción
Temperature (C)
4.475
4.470
4.465
4.460
4.455
4.450
4.445
2015-09-07
2015-09-09
2015-09-11
2015-09-13
2015-09-15
2015-09-17
2015-09-19
2015-09-21
Tiempo

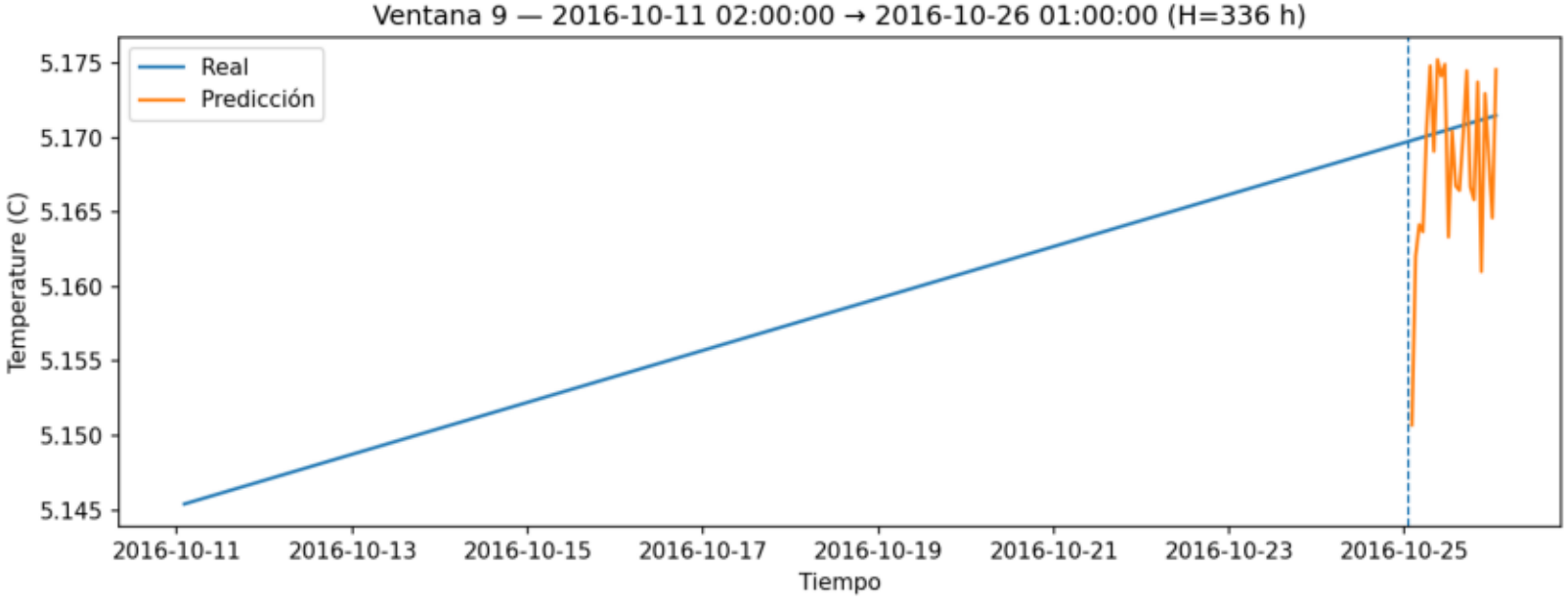

Ventana 4 — 2015-11-11 17:00:00 → 2015-11-26 16:00:00 (H=336 h)
Real
Predicción
4.590
4.585
4.580
4.575
4.570
4.565
Temperature (C)
2015-11-11
2015-11-13
2015-11-15
2015-11-17
2015-11-19
2015-11-21
2015-11-23
2015-11-25
2015-11-27
Tiempo

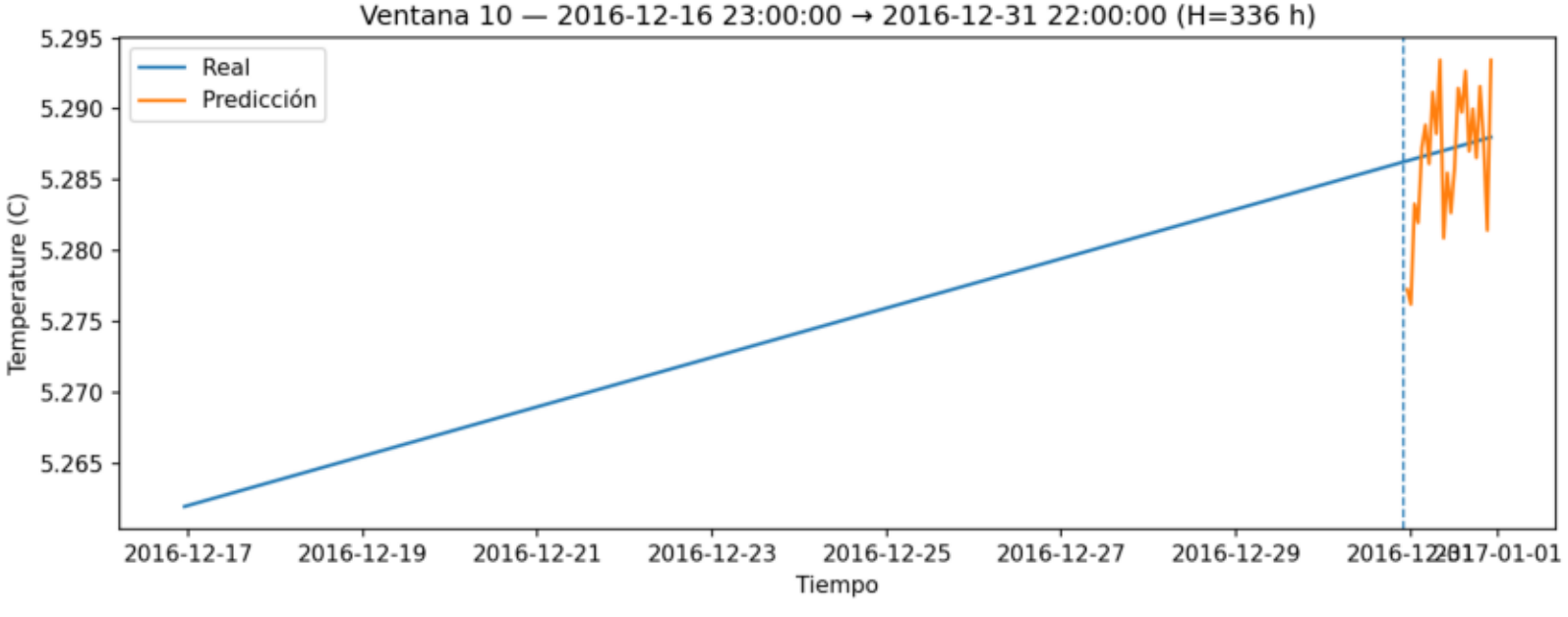

Ventana 5 — 2016-01-17 14:00:00 → 2016-02-01 13:00:00 (H=336 h)
Real
Predicción
Temperature (C)
4.710
4.705
4.700
4.695
4.690
4.685
4.680
2016-01-17
2016-01-19
2016-01-21
2016-01-23
2016-01-25
2016-01-27
2016-01-29
2016-02-01
Tiempo

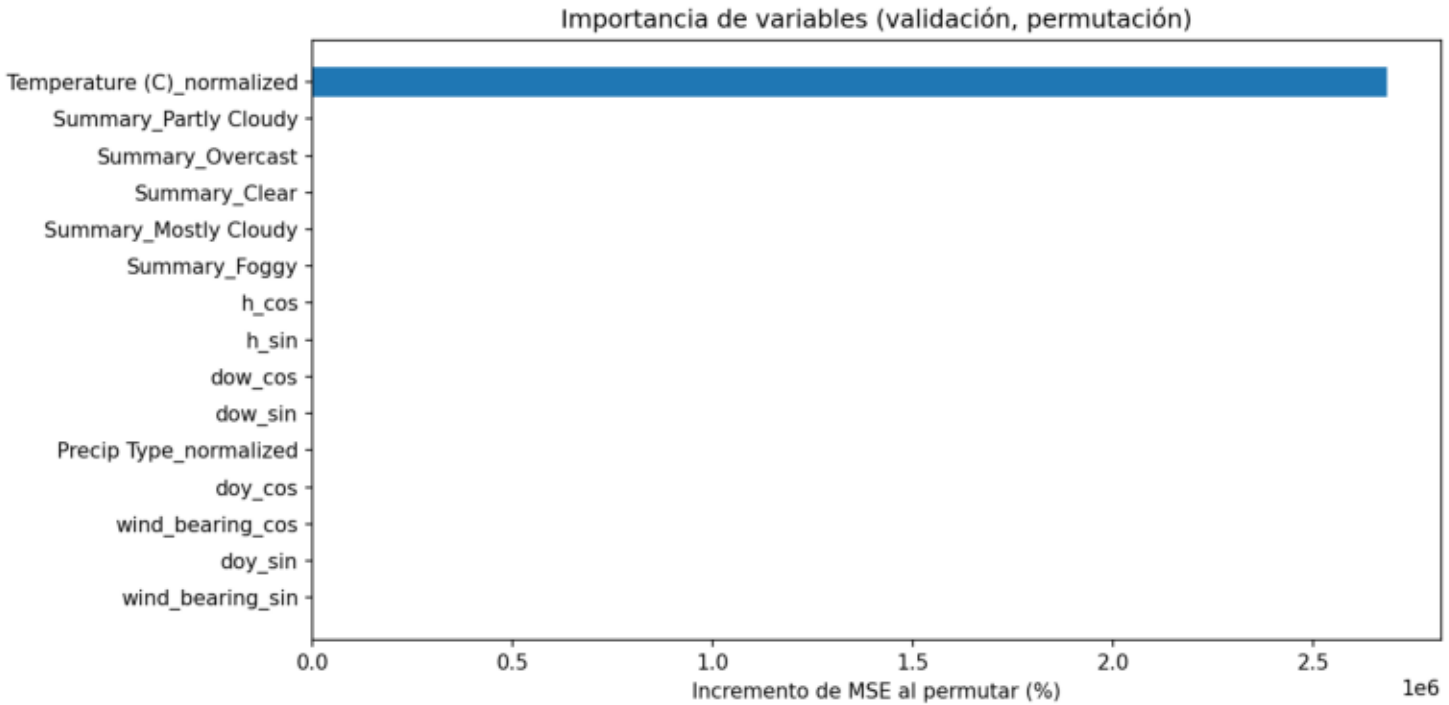

Ventana 6 — 2016-03-24 11:00:00 → 2016-04-08 10:00:00 (H=336 h)
Real
Predicción
Temperature (C)
4.825
4.820
4.815
4.810
4.805
4.800
4.795
2016-03-25
2016-03-27
2016-03-29
2016-04-01
2016-04-03
2016-04-05
2016-04-07
2016-04-09
Tiempo


Ventana 7 — 2016-05-30 08:00:00 → 2016-06-14 07:00:00 (H=336 h)
Real
Predicción
4.945
4.940
4.935
4.930
4.925
4.920
4.915
Temperature (C)
2016-05-31
2016-06-01
2016-06-03
2016-06-05
2016-06-07
2016-06-09
2016-06-11
2016-06-13
2016-06-15
Tiempo


Ventana 8 — 2016-08-05 05:00:00 → 2016-08-20 04:00:00 (H=336 h)
Real
Predicción
Temperature (C)
5.065
5.060
5.055
5.050
5.045
5.040
5.035
5.030
2016-08-05
2016-08-07
2016-08-09
2016-08-11
2016-08-13
2016-08-15
2016-08-17
2016-08-19
Tiempo


Ventana 9 — 2016-10-11 02:00:00 → 2016-10-26 01:00:00 (H=336 h)
Real
Predicción
Temperature (C)
5.175
5.170
5.165
5.160
5.155
5.150
5.145
2016-10-11
2016-10-13
2016-10-15
2016-10-17
2016-10-19
2016-10-21
2016-10-23
2016-10-25
Tiempo


Ventana 10 — 2016-12-16 23:00:00 → 2016-12-31 22:00:00 (H=336 h)
Real
Predicción
Temperature (C)
5.295
5.290
5.285
5.280
5.275
5.270
5.265
2016-12-17
2016-12-19
2016-12-21
2016-12-23
2016-12-25
2016-12-27
2016-12-29
2017-01-01
Tiempo


Importancia de variables (validación, permutación)
Temperature (C)_normalized
Summary_Partly Cloudy
Summary_Overcast
Summary_Clear
Summary_Mostly Cloudy
Summary_Foggy
h_cos
h_sin
dow_cos
dow_sin
Precip Type_normalized
doy_cos
wind_bearing_cos
doy_sin
wind_bearing_sin
0.0
0.5
1.0
1.5
2.0
2.5
Incremento de MSE al permutar (%)
1e6