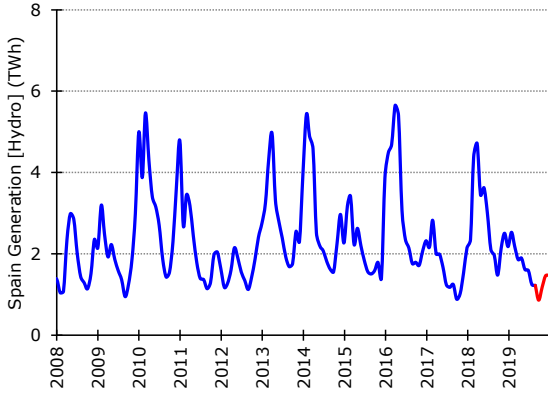


Spanish hydro generation was down 1.8% m-o-m and 38% y-o-y at 1.23TWh in September, giving the 7th month in a row of significant annual decline. This is a low output, but is not atypical for the month of September. Since 2016, September hydro generation output levels have ranged between 0.95 and 1.96TWh, averaging 1.41TWh.

Hydro's share of total Spanish generation was up slightly from 5.9% in August to 6.1% in September. This is slightly below the average September % share level in our dataset of 6.8%, but is noticeably down on Sep18's share level of 9.9%.

Our current forecast for Q419 is 1.17TWh per month, up 10% versus our previous edition and representing a 42% annual decline.

Spain hydro electricity generation, historical and forecast, TWh



Date	Spain Power [Hydro] (Forecast*)	Spain Power [Hydro] (Actual)	95% Confid.	
2019-08	1.00 TWh	1.25 TWh		
2019-09	1.09 TWh	1.23 TWh		
2019-10	0.86 TWh		0.18	1.49
2019-11	1.18 TWh		0.12	2.13
2019-12	1.46 TWh		0.07	2.69
2020-01	1.47 TWh			

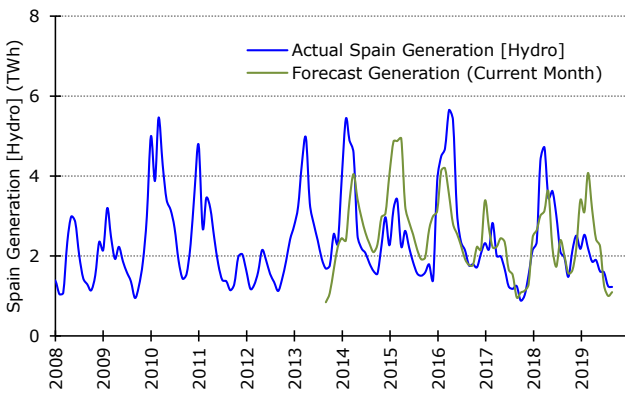
Source: Perret Associates

Note:

(*) *Historic forecasts* shown are those made immediately before publication of actual data.

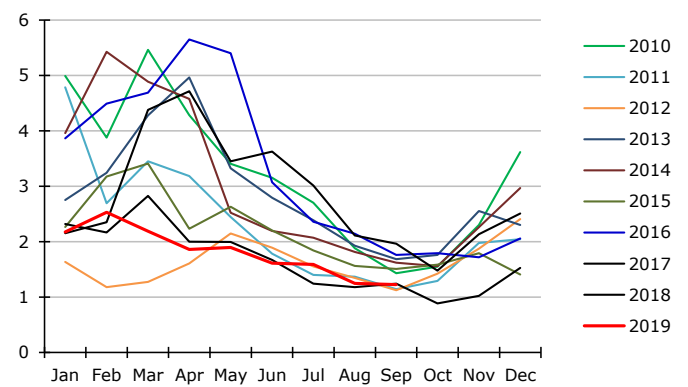
Source: Red Electrica De Espania, Perret Associates forecast

Historical forecast vs. actual, current month



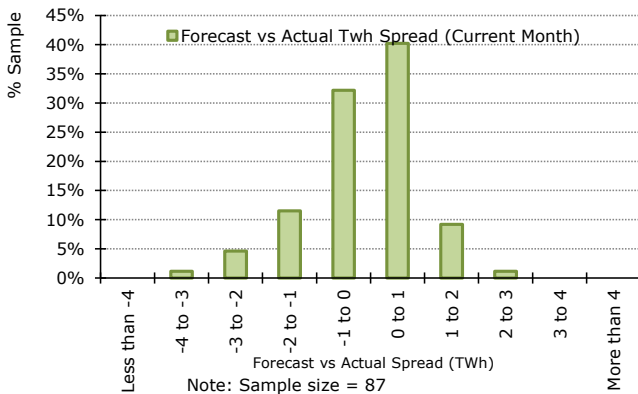
Source: Perret Associates

Hydroelectric generation, TWh



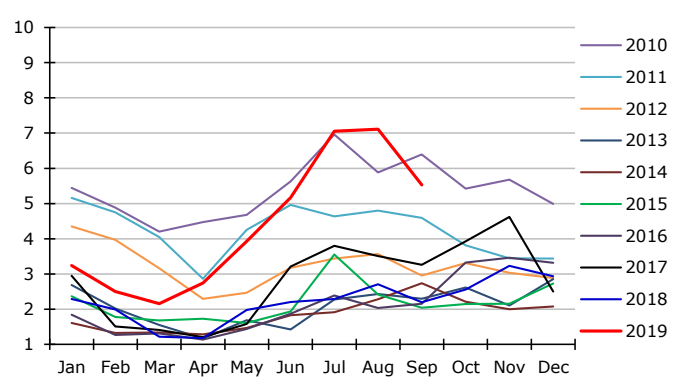
Source: Red Electrica de Espania, Perret Associates

Forecast error spread vs actual, current month, %



Source: Perret Associates

Gas-fired generation, TWh



Source: Perret Associates