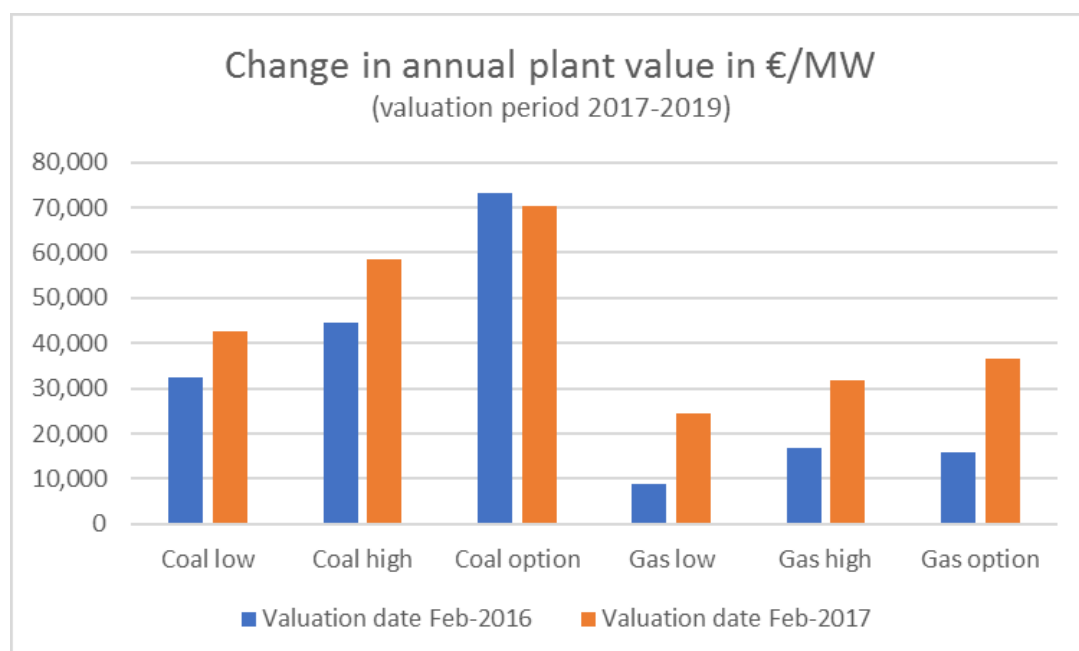


Power plant and option report

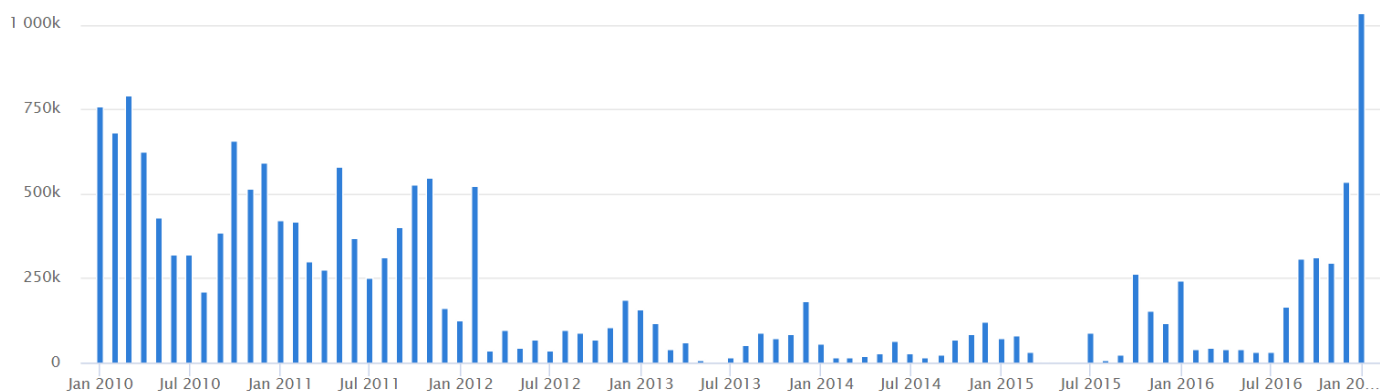
Products	Name	Fuel	Max efficiency	Min efficiency	Var. costs €/MWh	Start costs €/MW
	Coal 40%	API2	40%	34%	4.0	62.5
	Coal 46%	API2	46%	40%	4.0	62.5
	Coal 46% option	API2	46%	46%	4.0	0.0
	Gas 54%	NCG	54%	48%	2.5	25.0
	Gas 60%	NCG	60%	54%	2.5	25.0
	Gas 60% option	NCG	60%	60%	2.5	0.0

Intrinsic	Name	2017 Jan	2017 Feb-Dec	2017	2018	2019	Total
	Coal 40%	13,270	30,037	43,307	21,205	12,556	77,068
	Coal 46%	16,243	52,202	68,445	38,875	25,924	133,243
	Coal 46% option	16,553	59,038	75,591	47,618	36,016	159,225
	Gas 54%	8,658	4,355	13,013	1,840	361	15,214
	Gas 60%	10,349	12,230	22,579	6,583	2,492	31,654
	Gas 60% option	10,475	19,103	29,578	10,983	5,739	46,301

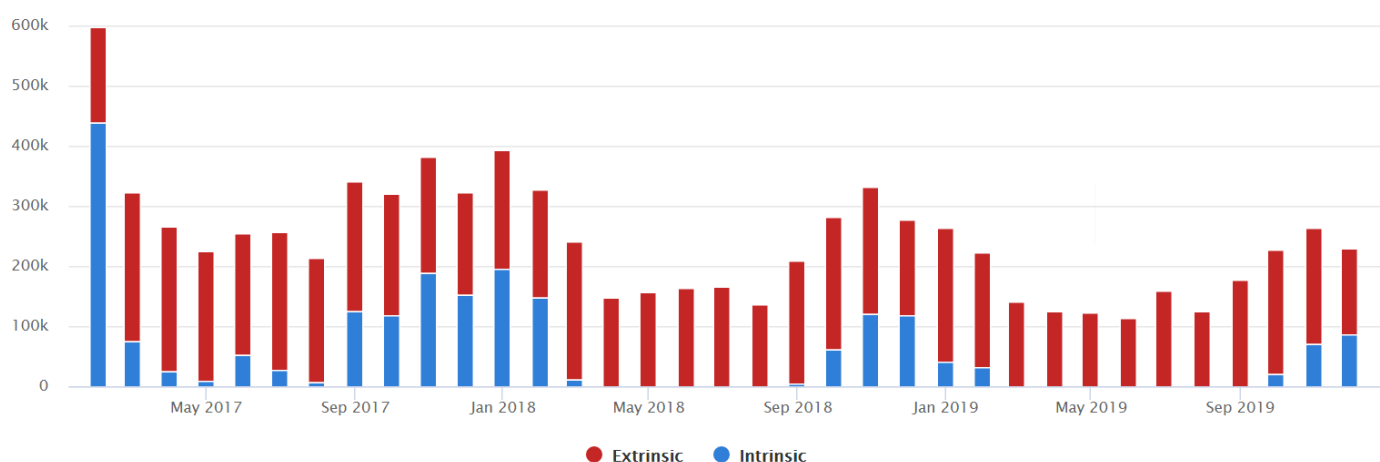
Simulation	Name	2017 Jan	2017 Feb-Dec	2017	2018	2019	Total
	Coal 40%	13,270	45,024	58,294	38,808	30,395	127,497
	Coal 46%	16,243	63,763	80,006	53,454	42,447	175,906
	Coal 46% option	16,553	74,379	90,932	65,523	54,441	210,895
	Gas 54%	8,658	26,370	35,028	21,855	16,800	73,683
	Gas 60%	10,349	35,008	45,357	28,349	21,702	95,408
	Gas 60% option	10,475	40,408	50,883	32,925	25,715	109,523



Realized value for the Gas 60% plant product



Estimated future value for the Gas 60% plant product



Explanation

All valuations have been performed with KYOS software, in particular KyPlant and KySim. Simulation values are the average across a large number of Monte Carlo price simulations and using the least-squares Monte Carlo methodology to derive the optional dispatch (exercise) of the products.

All plants have a maximum capacity of 1 MW, at which they reach the maximum efficiency. Alternatively, the plants can produce at 0.5 MW capacity (minimum stable generation) at the minimum efficiency.

Efficiencies are assumed to be slightly lower in summer and higher in winter. The last plant is a strip of hourly clean spark spread options, with no start costs and a single efficiency. The variable costs are per MWh of production and the start costs apply to a start from 0 to maximum production. No other plant operational, investment or financing costs are assumed. Nor did we include maintenance, trips, minimum on- and off-times, ramp rates, etc.

All these features can easily be modelled by KyPlant, but for simplicity are left out from this report.

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