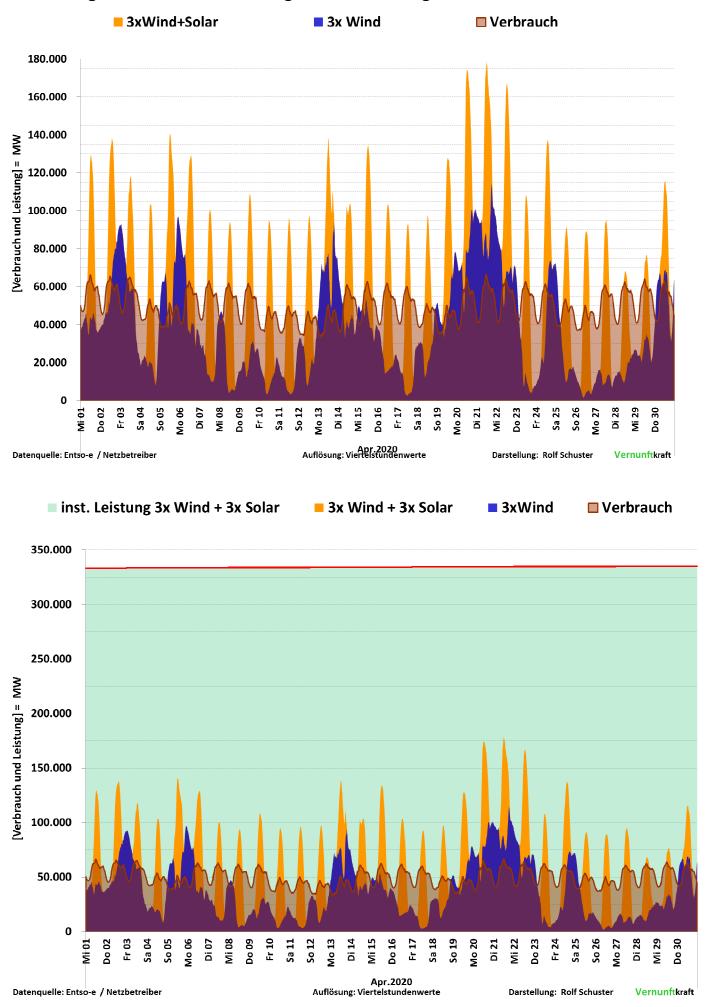
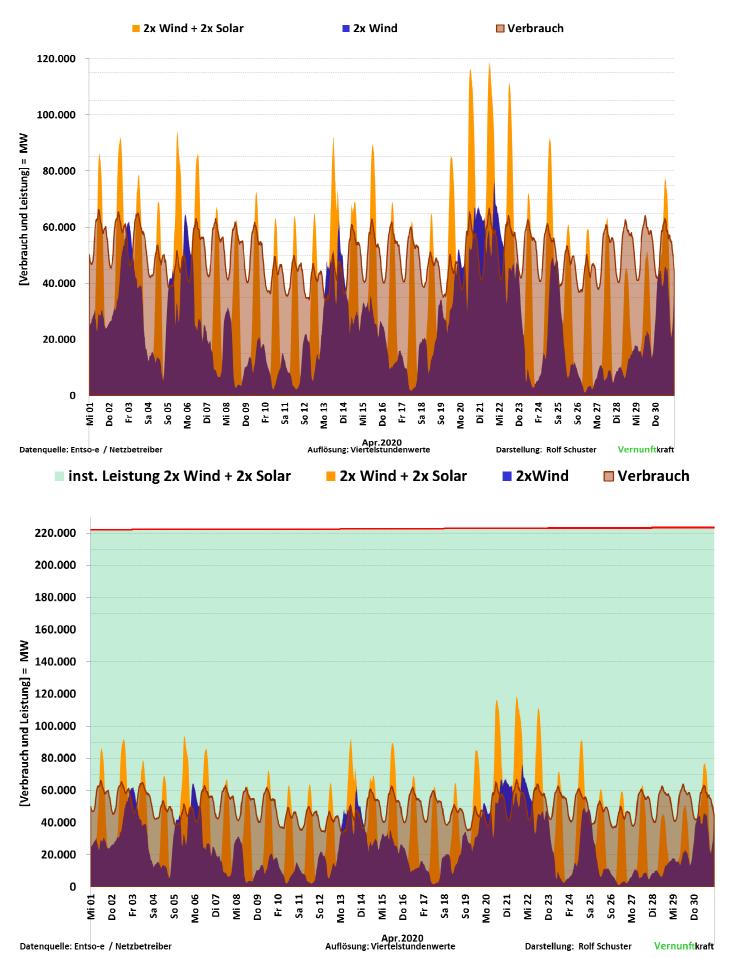


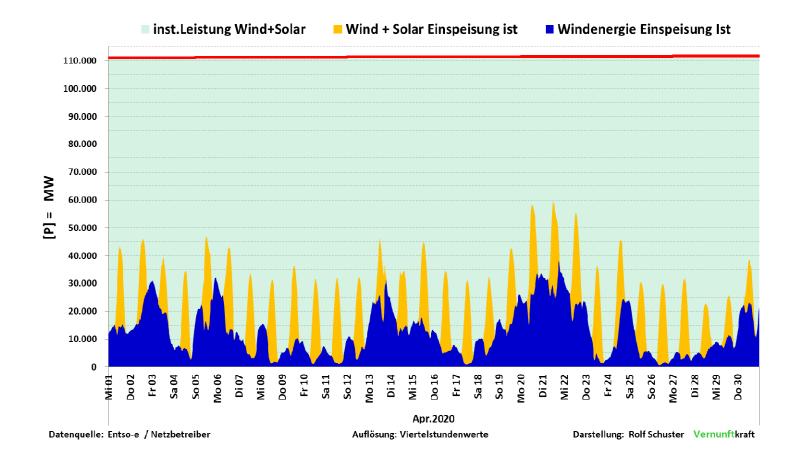
Apr 2020	Load D	Wind	Solar	Wind + Solar	Proz. der Nennleist.
inst. Nennleistung		61.506MW	50.221MW	111.727MW	
Max	66.785MW	38.235MW	32.983MW	59.659MW	53,40%
Mittelwert	50.003MW	12.526MW	8.773MW	21.299MW	19,06%
Min	33.541MW	556MW	0MW	1.659MW	1,49%
Summe Monat	36.002GWh	9.018GWh	6.317GWh	15.335GWh	19,06%

## Darstellung bei einer Verdreifachung der Nennleistung von Wind und Solar



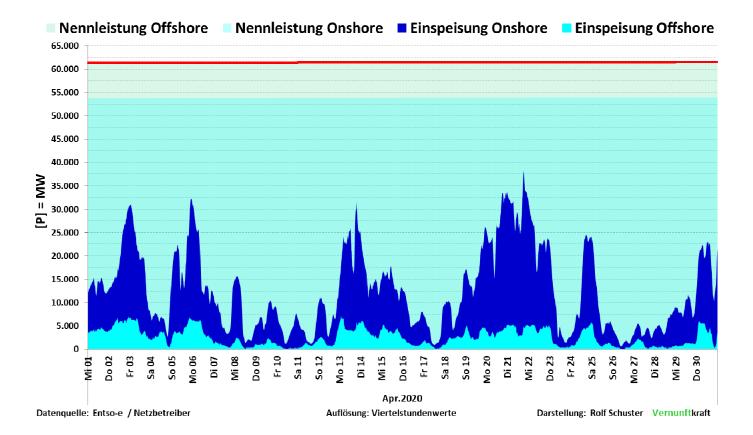
## Darstellung bei einer Verdopplung der Nennleistung von Wind und Solar (Ziel 2030?)





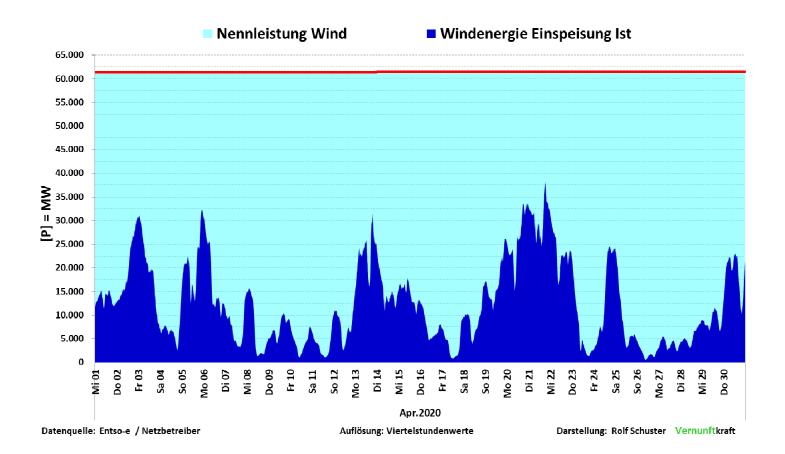
Apr 2020	Wind	Solar	Wind + Solar	Proz. der Nennleist.
inst. Nennleistung	61.506MW	50.221MW	111.727MW	100,0%
max. Einspeiseleistung	38.235MW	32.983MW	59.659MW	53,4%
Mittelwert	12.526MW	8.773MW	21.299MW	19,1%
min. Einspeiseleistung	556MW	0MW	1.659MW	1,49%
Summe	9.018GWh	6.317GWh	15.335GWh	

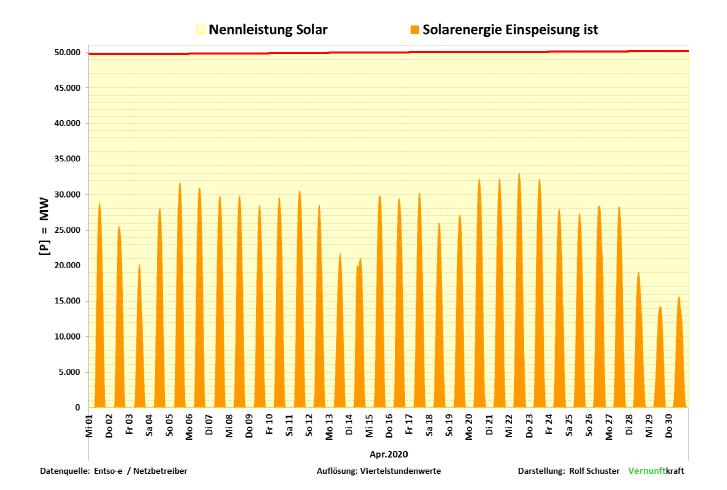
Summe der erzeugten E	15.335GWh						
Verteilung der Einspeisung nach Klassen							
0% bis 10% NL	27,0%						
11% bis 20% NL	193,25 h	26,8%					
21% bis 30% NL	215,25 h	29,9%					
31% bis 40% NL	84,25 h	11,7%					
größer 40%	32,50 h	4,5%					
Summe	720,00 h	100,0%					



Apr 2020	Kennzahlen Wind	Kennzahlen Onshore	Kennzahlen Offshore	Proz. der Nennleist.	Proz. der Nennleist.	Proz. der Nennleist.
inst. Nennleistung	61.506MW	53.926MW	7.580MW	100,0%	100,0%	100,0%
max. Einspeiseleistung	38.235MW	33.465MW	6.950MW	62,2%	62,1%	91,7%
Mittelwert	12.526MW	9.983MW	2.542MW	20,4%	18,5%	33,5%
min. Einspeiseleistung	556MW	456MW	51MW	0,903%	0,845%	0,673%
Summe	9.018.4GWh	7.188.1GWh	1.830.3GWh			

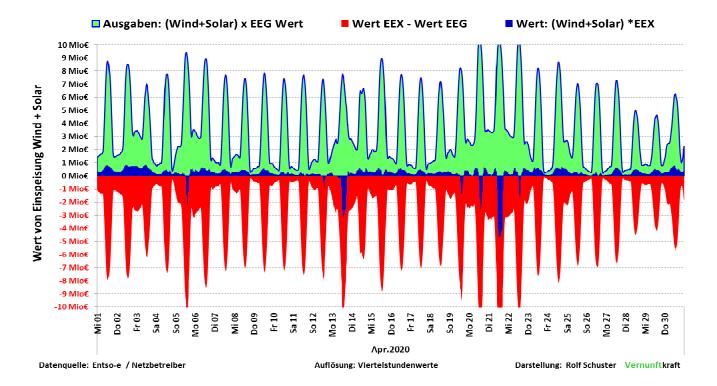
Summe der erzeugten E	9.018GWh	
Verteilung der Einspeis	ssen	
0% bis 10% NL	30,4%	
11% bis 30% NL	44,2%	
31% bis 50% NL	21,6%	
51% bis 70% NL	3,9%	
größer 70%	0,00%	
Summe Stunden	720,00 h	100,0%



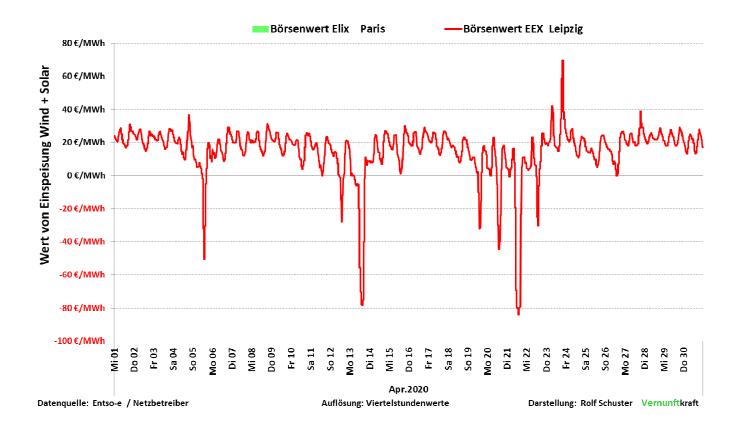


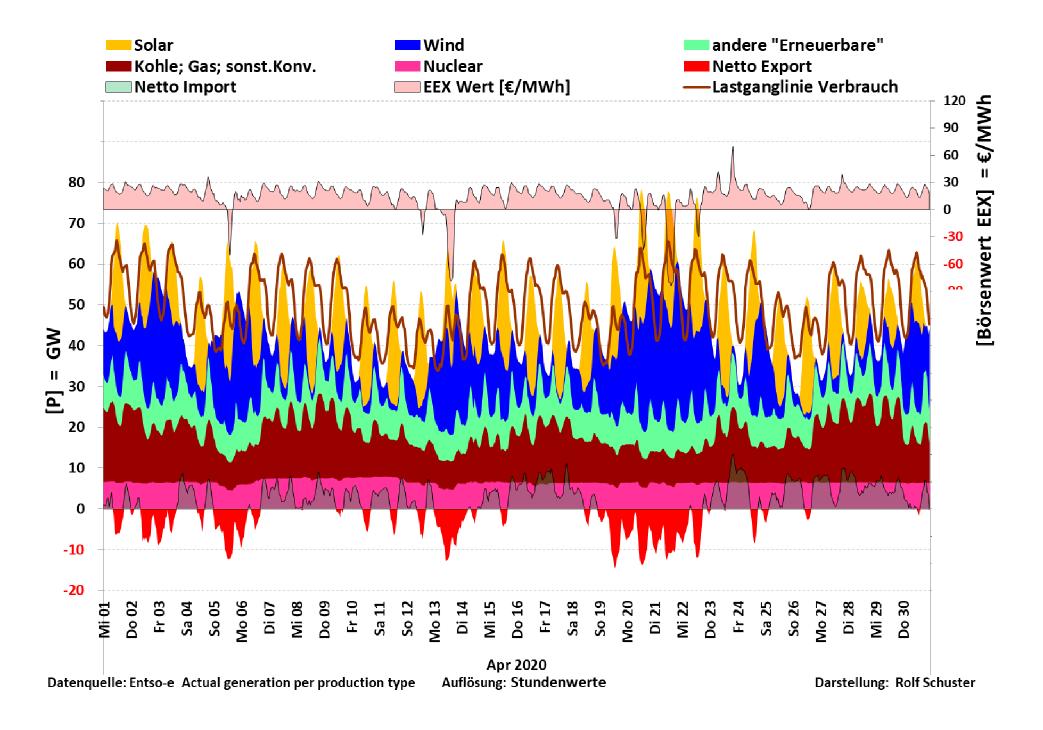
Apr 2020	Kennzahlen Solar	Proz. der Nennleist.		
inst. Nennleistung	50.221MW	100,0%		
max. Einspeiseleistung	32.983MW	65,7%		
Mittelwert	8.773MW	17,5%		
min. Einspeiseleistung	0MW	0,0%		
Summe	6.317GWh			

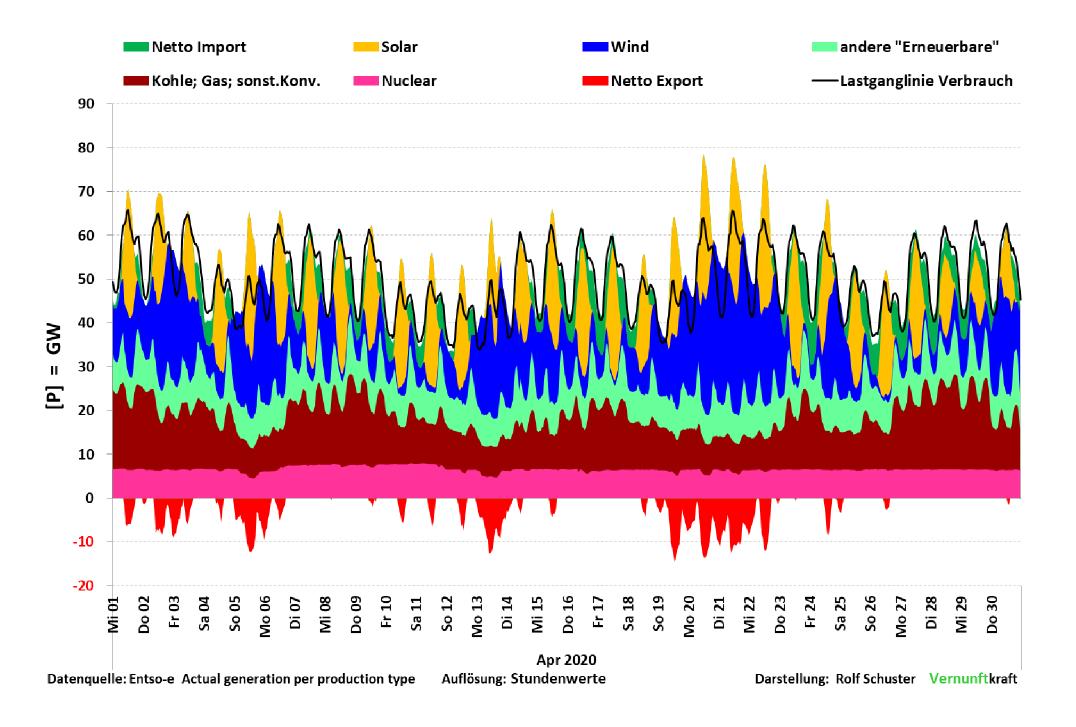
Summe der erzeugten	6.317GWh	
Verteilung der Einspeis	ssen	
Einsp. = 0 MW	39,3%	
1% bis 20% NL	170,50 h	23,7%
21% bis 40% NL	15,2%	
größer 40%	21,8%	
Summe	720,00 h	100,0%

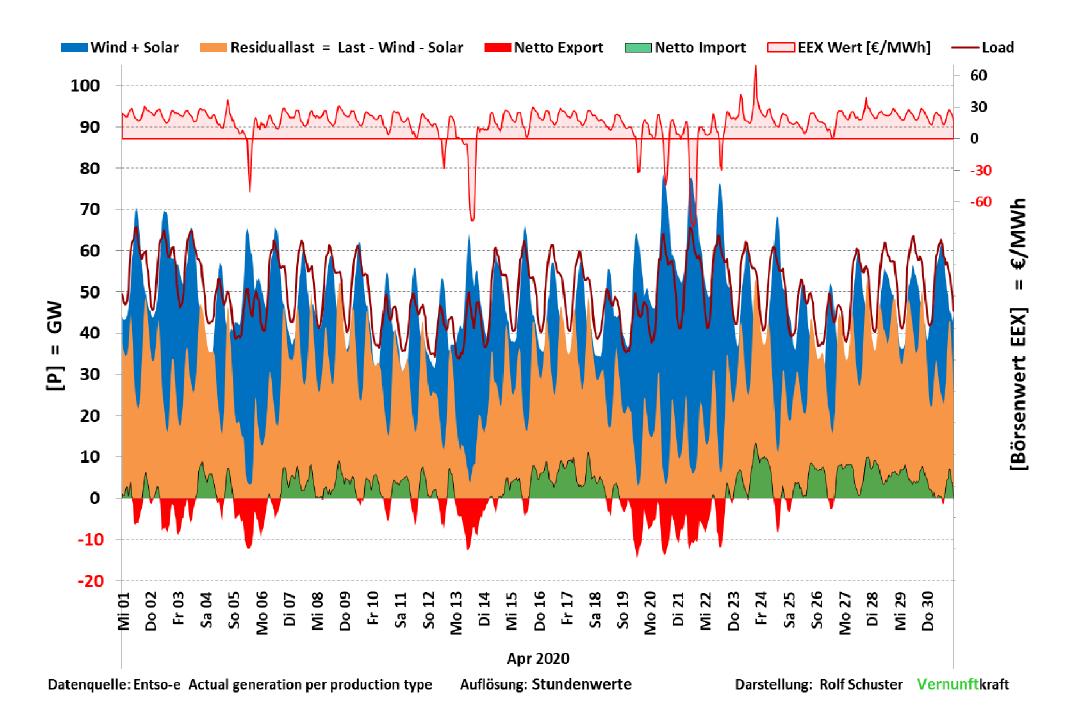


Apr.2020	Wind + Solar EEG-Wert	Wind + Solar Börsenwert EEX	Differenz EEX-Wert - EEG-Wert	EEX Preis
Max / h	10.573.780,0 €	852.948,8 €		69,68 €/MWh
Mittel / h	3.525.912,3 €	202.042,0 €		15,25 €/MWh
Min /h	205.937,0 €	-4.723.781,7 €		-83,94 €/MWh
Summe Mon.	2.538.656.863,8 €	145.470.248,5 €	-2.393.186.615,3 €	

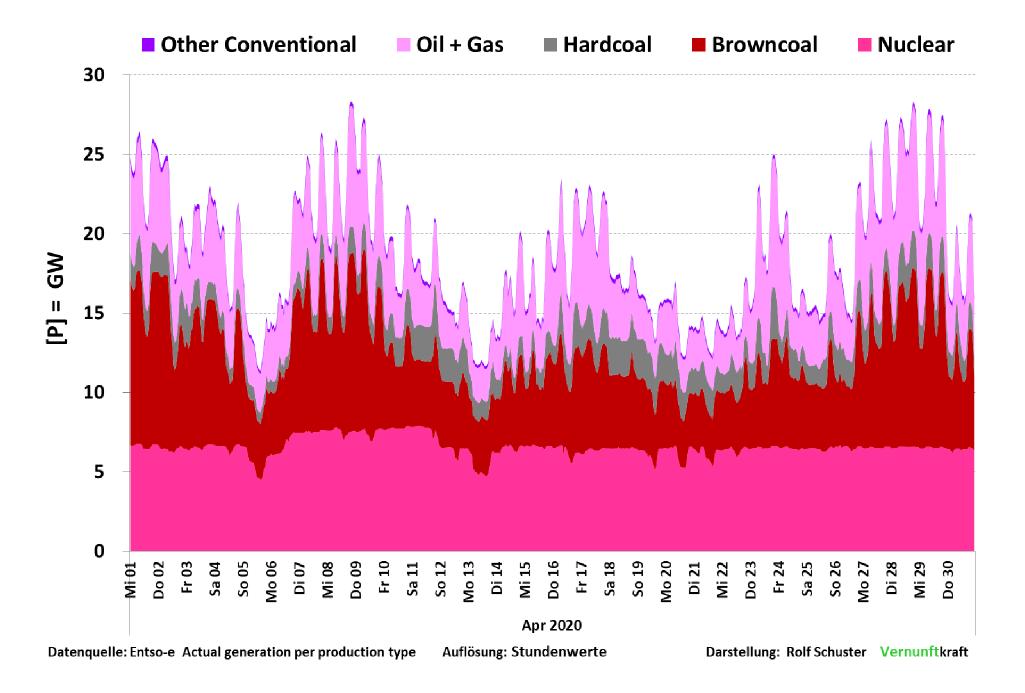


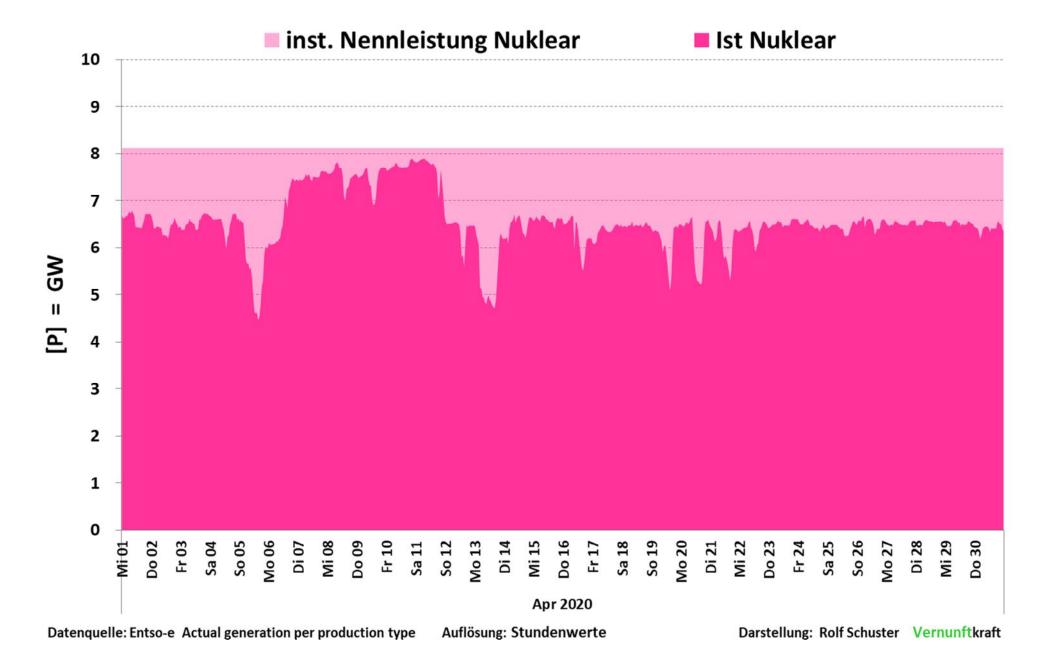


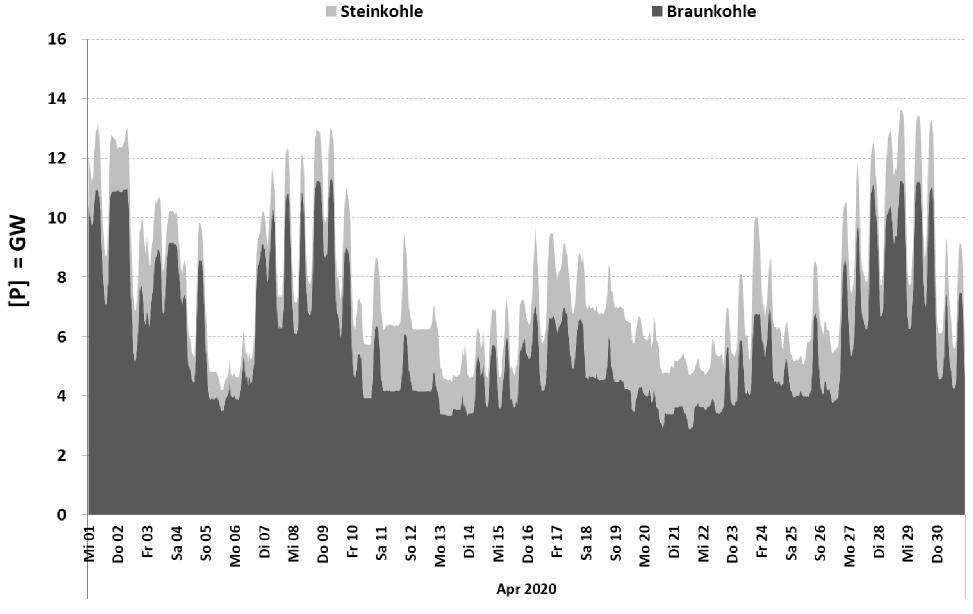




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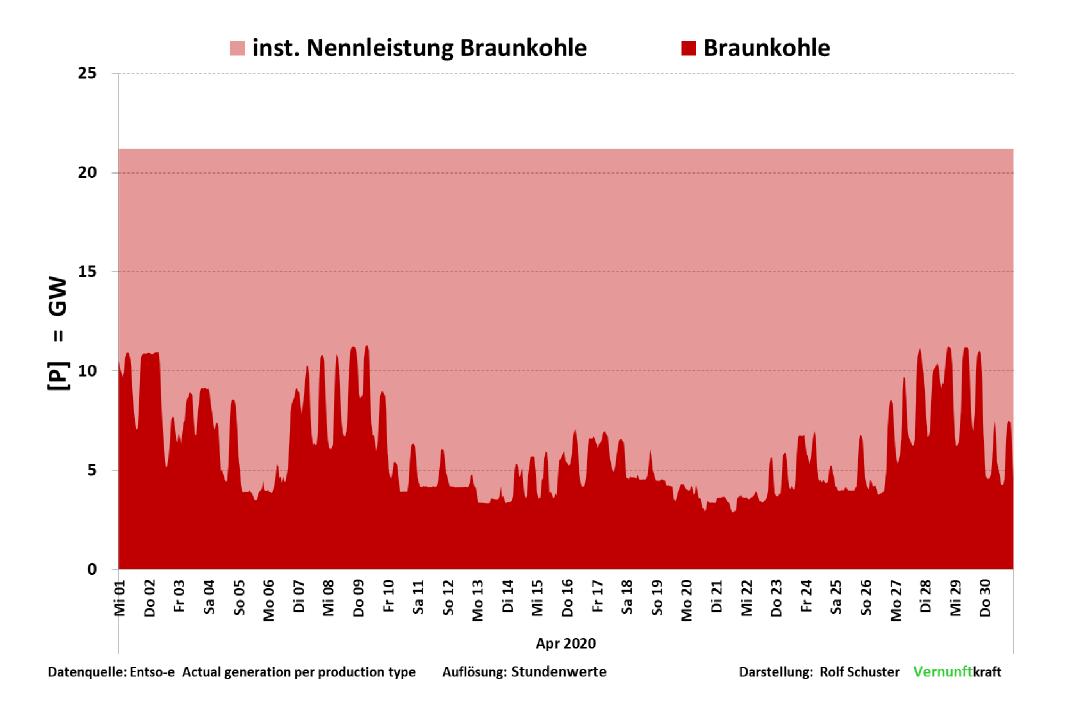


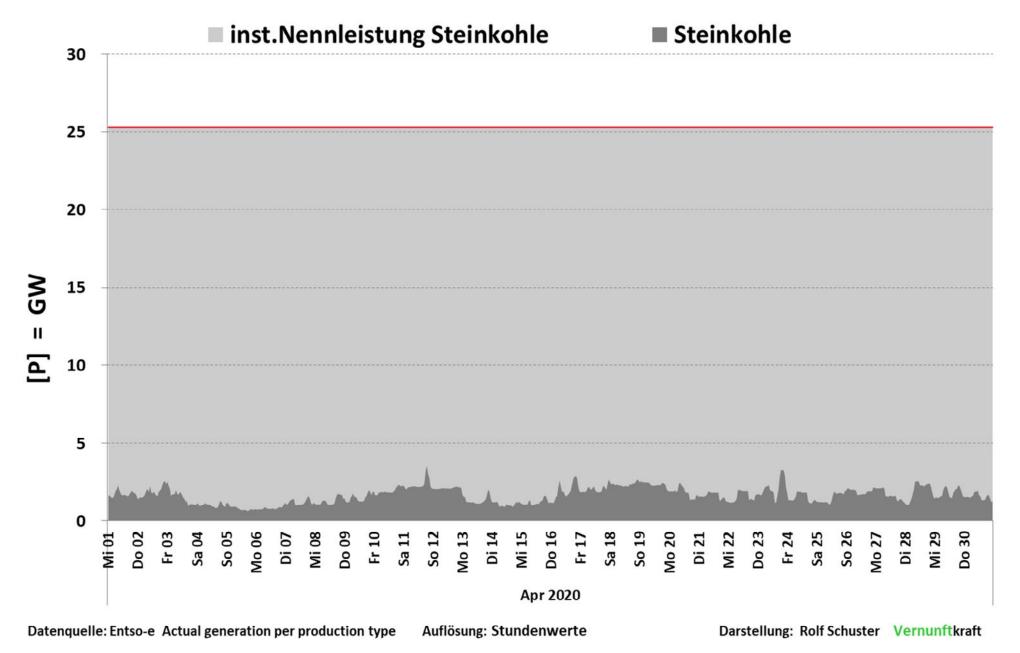


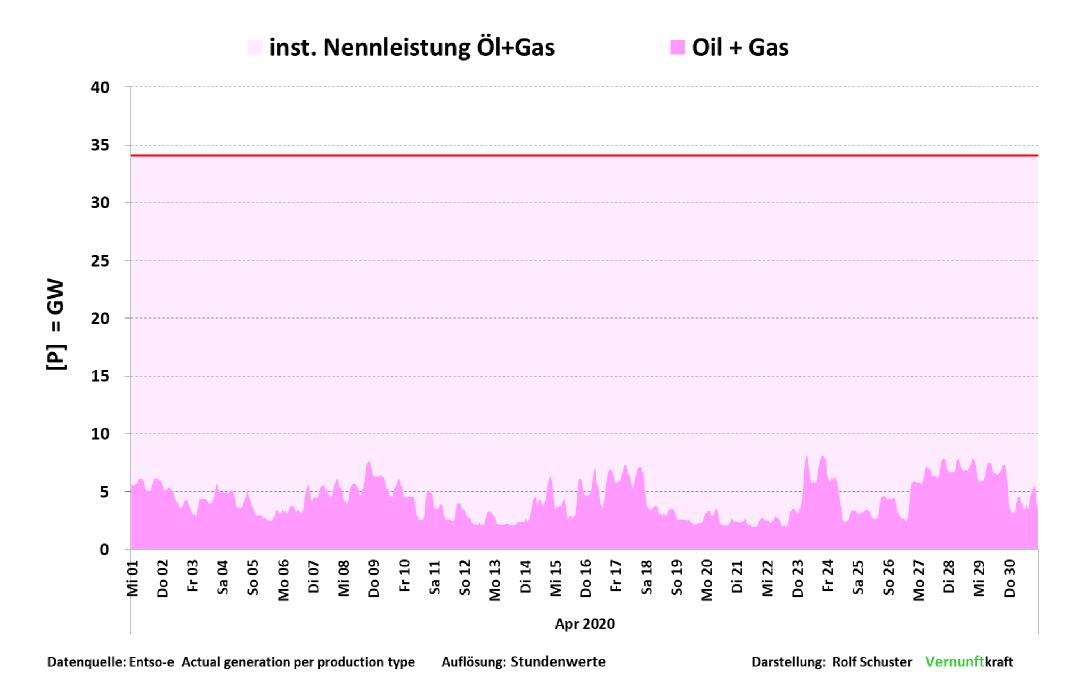
Datenquelle: Entso-e Actual generation per production type

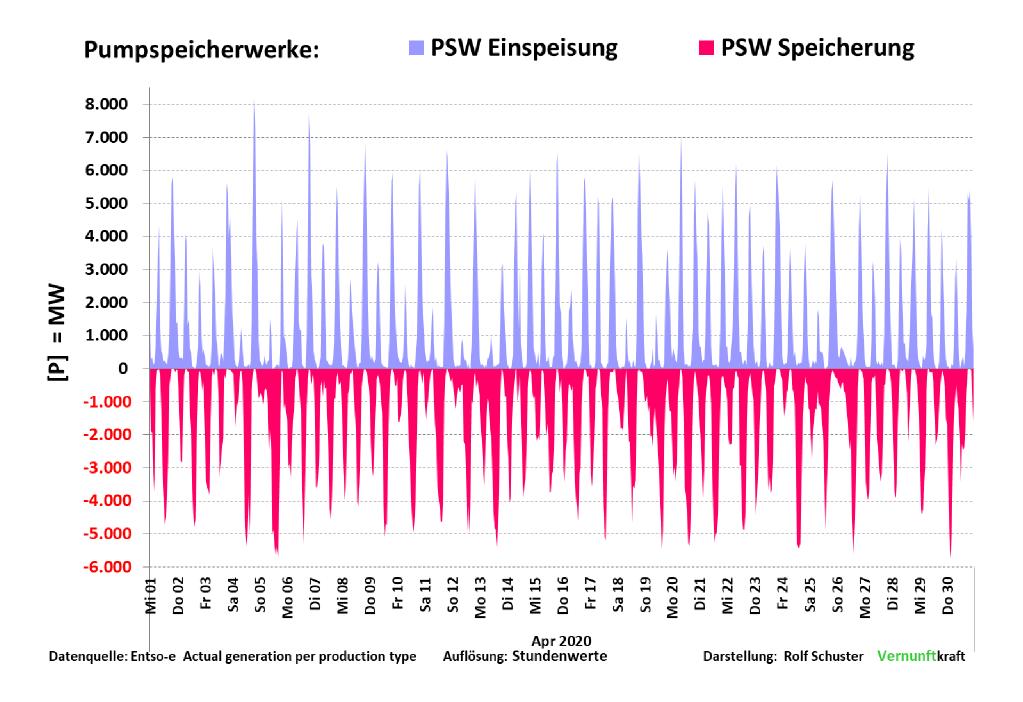
Auflösung: Stundenwerte

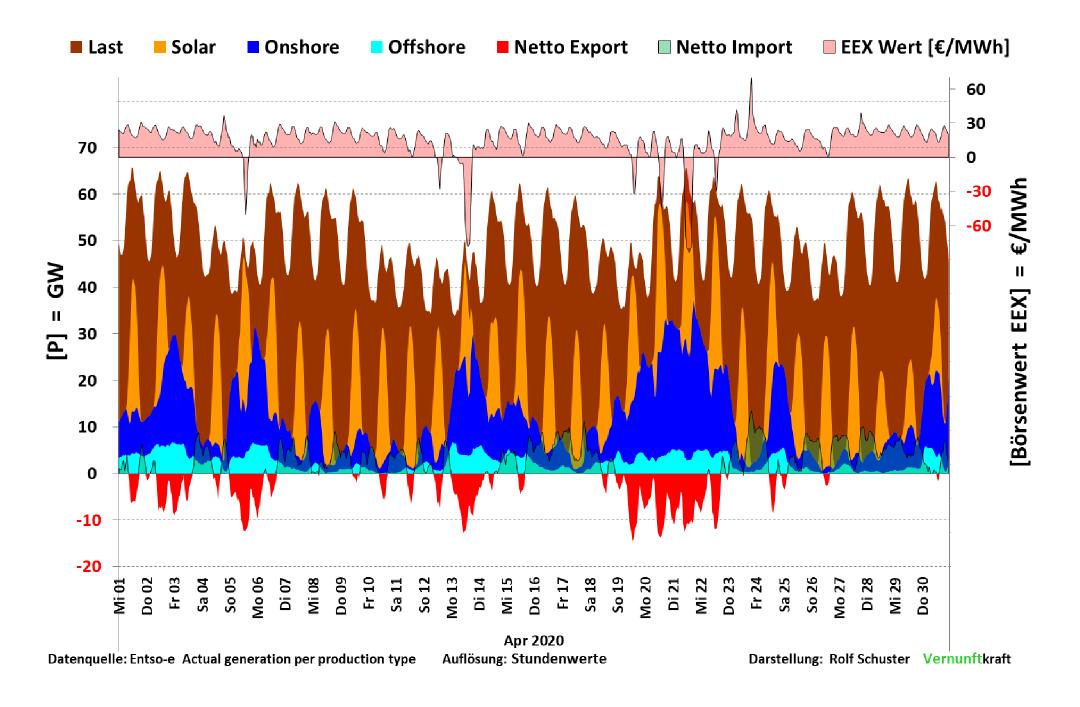
Darstellung: Rolf Schuster Vernunftkraft

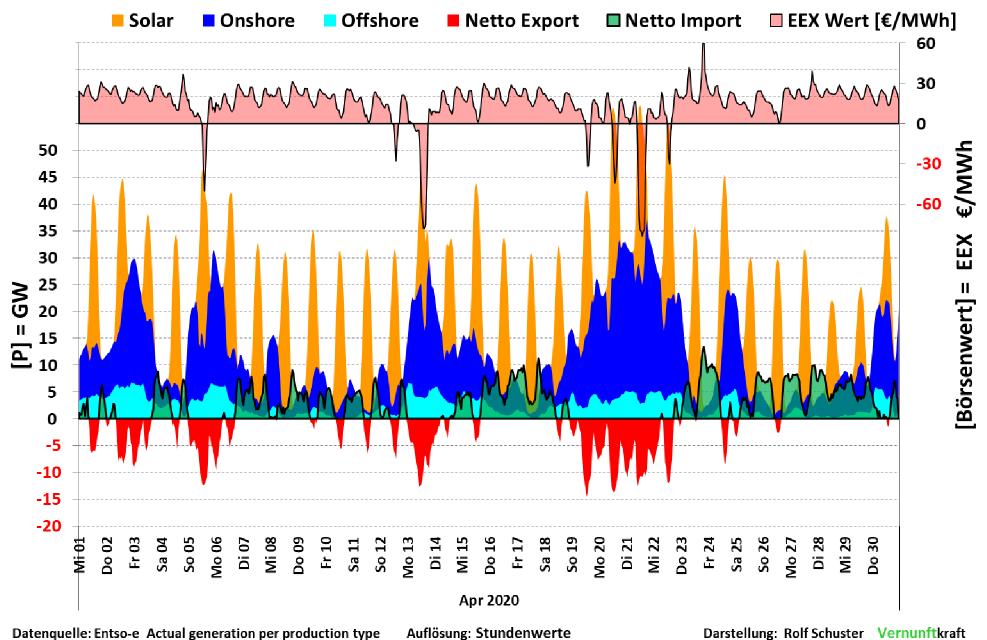






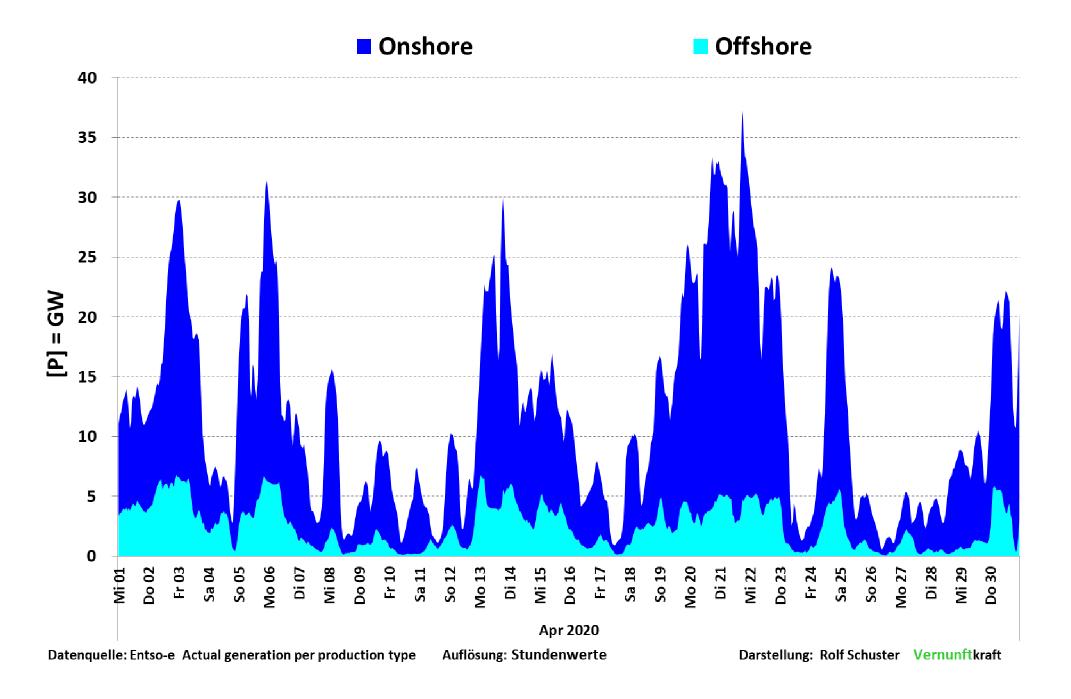




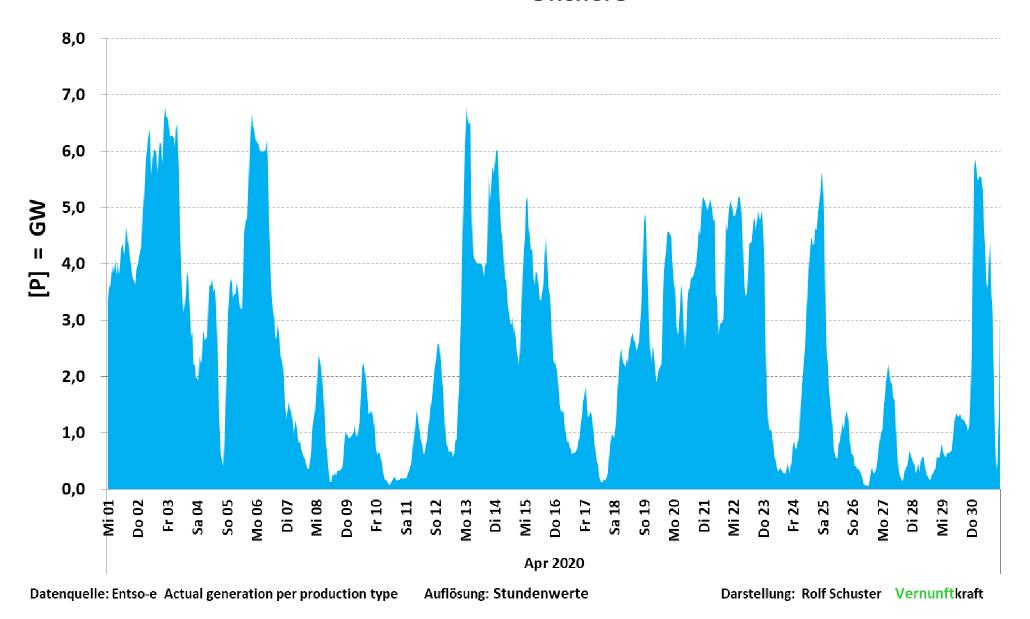


Datenquelle: Entso-e Actual generation per production type Auflösung: Stundenwerte

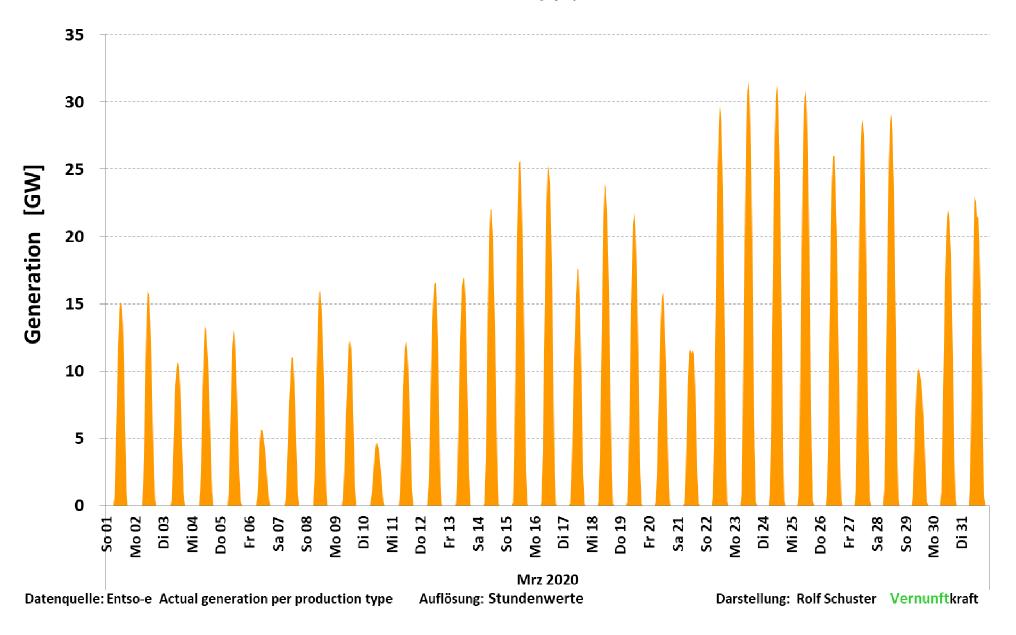
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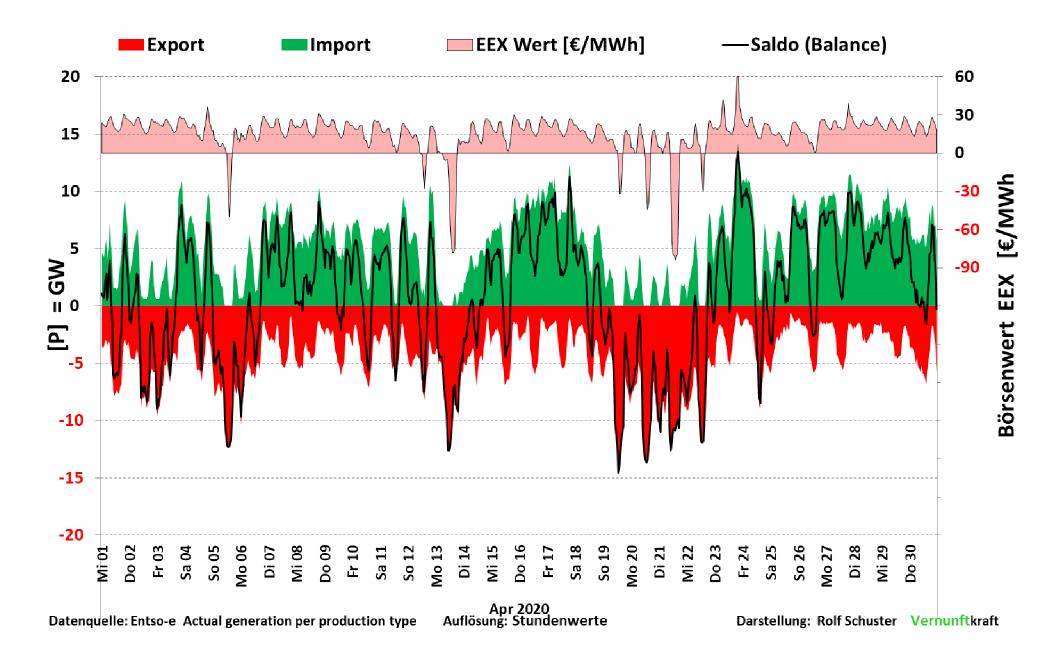


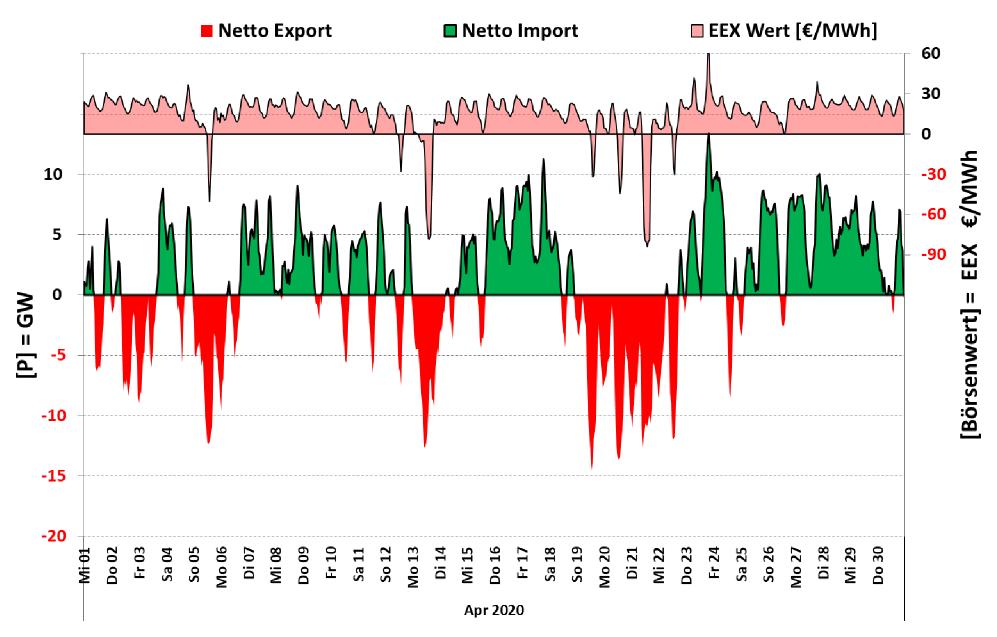
## Offshore











## Negativstunden an der Strombörse EEX

	Negativstunden												
Jahr	Summe Jahr	Jan	Feb	Mrz	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
2010	12	2		3		2	3						2
2011	15	4	4				2						5
2012	56	19		1	1							2	33
2013	64	5		6		2	20			2	5		24
2014	64	1	3	13	3	10			6				28
2015	126	28	8	14	14	17		3		13		18	11
2016	97	5	14	6		21		2				14	35
2017	146	3	5		16	17		7	8	8	39	1	42
2018	133	44	5	21	3	31				3	6		20
2019	232	34	9	43	16	19	41	2	11	15	4		38
2020	170	3	77	41	49								