

Quelle-Nr. LASAT	Quellentyp	# Anlagen	Brennstoff	HEL [t/a]	Erdgas [t/a]	Betriebs- stunden [h/a]	antellig im Jahr	FWL [MW]	FWL [MW]	h [m]	A [m²]	dq [m]	qq [MW]	dV/dt - IP [Nm³/h]	dV/dt [Nm³/h]	T [°C]	Nox/EG [mg/Nm³ tr.]	Nox/HEL [mg/Nm³ tr.]	dm/dt: NOx -IP [kg/h]	dm/dt: NOx -IP [g/s]	dm/dt: NO2 -IP [g/s]	dm/dt: NO -IP [g/s]	Staub [mg/Nm³ tr.]	dm/dt: Staub [kg/h]	dm/dt: Staub [g/s]	dm/dt PM-1 [g/s]	dm/dt PM-2 [g/s]	Quelle	dm/dt NO2 [kg/h]	dm/dt NO [kg/h]	dm/dt PM-1 [kg/h]	dm/dt PM-2 [kg/h]	
1	BHKW_457.1	1	Erdgas		2.157E+03	6207	71%	4.8		32	0.38	0.70	0.08	5520	8400	49	250		1.38	3.833E-01	3.833E-02	2.250E-01						BHKW_457.1					
	BHKW_457.M3	1	Erdgas		7.634E+02	3928	45%	2.7		32	0.38	0.70	0.04	3105	4000	45	250		0.77625	2.156E-01	2.156E-02	1.266E-01						BHKW_457.M3					
	Zwischensumme BHKW 457																		2.15625	5.990E-01	5.990E-02	3.516E-01						Zwischensumme BHKW 457	2.16E-01	1.266E+00			
2	BHKW_471	1	Erdgas		5.706E+03	7798	89%	9.5		37	0.785	1.00	0.35	10925	19200	95	500		5.4625	1.517E+00	1.517E-01	8.908E-01						BHKW_471	5.46E-01	3.207E+00			
	Zwischensumme BHKW																											Zwischensumme BHKW					
	Ölkessel_1	1	HEL	9.524E+01		79	1%	6.7		45	0.5	0.80	0.26	6968		110	250		1.742	4.839E-01	4.839E-02	2.841E-01	2	1.394E-02	3.871E-03	2.323E-03	1.548E-03	Ölkessel_1	1.74E-01	1.023E+00	8.36E-03	5.57E-03	
	Ölkessel_2	1	HEL					6.7		45	0.5	0.80	0.26	6968		110	250		1.742	4.839E-01	4.839E-02	2.841E-01	2	1.394E-02	3.871E-03	2.323E-03	1.548E-03	Ölkessel_2					
3	Summe Öl-K1/K2																											Summe Öl-K1/K2					
4	Gas_Öl_Kessel_K3	1	HEL	1.814E+02		412	5%	14.04		45	0.64	0.90	0.55	14601.6		110	250		3.6504	1.014E+00	1.014E-01	5.953E-01	2	2.920E-02	8.112E-03	4.867E-03	3.245E-03	Gas_Öl_Kessel_K3	3.65E-01	2.143E+00	1.75E-02	1.17E-02	
	EG				3.340E+02	412	5%																										
5	Gas_Öl_Kessel_K4	1	HEL	2.797E+01		891	10%	14.4		45	0.64	0.90	0.57	14976		110	150	250	3.744	1.040E+00	1.040E-01	6.106E-01	5	7.488E-02	2.080E-02	1.248E-02	8.320E-03	Gas_Öl_Kessel_K4	3.74E-01	2.198E+00	4.49E-02	3.00E-02	
	EG				1.006E+03	891	10%																										
6	Gas_Öl_Kessel_K7	1	HEL					14.22		45	0.785	1.00	0.56	14788.8		110	150	250	3.6972	1.027E+00	1.027E-01	6.029E-01	5	7.394E-02	2.054E-02	1.232E-02	8.216E-03	Gas_Öl_Kessel_K7	3.70E-01	2.171E+00	4.44E-02	2.96E-02	
	EG				3.677E+03	3216	37%																										
	Zwischensumme Kessel								56.06																								
	BHKW_ARA_7_304	entfällt	Biogas		5.146E+02	2241	26%	0.969		14	0.05	0.25					500											BHKW_ARA_7_304					
7	BHKW_ARA_7_305	1	Biogas		8.297E+02	3180	36%	1.317		11	0.06	0.28	0.04	1606.74		70	500		0.80337	2.232E-01	2.232E-02	1.310E-01	2	3.213E-03	8.926E-04	5.356E-04	3.571E-04	BHKW_ARA_7_305	8.03E-02	4.716E-01	1.93E-03	1.29E-03	
8	Abluftreinigung_8.450 (ZAR)	1	entfällt			8587	98%	0		38	1.33	1.30	0.27	48000	48000	25			0									Abluftreinigung_8.450 (ZAR)					
9	Abluft_Mahlraum_353	1	entfällt			1000	11%	0		29	0.222	0.53	0.04	7370	7370	24			0				20	1.474E-01	4.094E-02	2.457E-02	1.638E-02	Abluft_Mahlraum_353			8.84E-02	5.90E-02	
10	Abluft_Punktabsaugung_444	1	entfällt			500	6%	0		34	0.11	0.37	0.04	9000	9000	21			0				20	1.800E-01	5.000E-02	3.000E-02	2.000E-02	Abluft_Punktabsaugung_444			1.08E-01	7.20E-02	
11	BHKW_662	1	Erdgas			6000	68%	1.05		31	0.031	0.20	0.05	1207.5		110	500		0.60375	1.677E-01	1.677E-02	9.846E-02						BHKW_662	6.04E-02	3.545E-01			
12	Biomasse HKW - Erweiterung		Holz			8400		7		20	0.5	0.80	0.77	11100		159	300		3.33	9.250E-01	9.250E-02	5.431E-01	20	2.220E-01	6.167E-02	3.700E-02	2.467E-02	Biomasse HKW - Erweiterung	3.33E-01	1.955E+00	1.33E-01	8.88E-02	
																				2.909E+01	9.048E+00	9.048E-01	5.312E+00	3.180E+02	2.816E+00	7.822E-01	4.693E-01	3.129E-01		2.52E+00	14.78833855	4.47E-01	2.98E-01

Brennstoff-Heizwerte

HU_Erdgas nach Angaben Roche:	49000	[kJ/kg]
HU_Biogas nach Angaben Roche:	18000	[kJ/kg]
HEL Kohlenstoffgehalt:	86.50%	[-]

Auswertung Feuerungsanlagen

Σ: alle Feuerungsanlagen	100.338
Σ: Energieerzeuger ohne HT-F/NEA	75.427
Σ: NEA	21.981
Σ: HT-Fackeln	2.93

Anzahl Jahresstunden für IP: **8760** [h/a]

Verteilung der NOx-Emissionen und pm-1/pm-2

NO2-Anteil der Emissionen:	0.1
Faktor PM -1 / PM-2	0.6

Σ: Kessel	56.06
Σ: BHKW_Erdgas	18.05
Σ: BHKW_Biogas	1.317
Σ:	75.427

dm/dt: NOx -IP	2.207E+05	dm/dt: Staub	6.522E+03	dm/dt NO2	2.2066E+04	dm/dt NO	1.2955E+05	dm/dt PM-1	3.91E+03	dm/dt PM-2	2.61E+03
[g/a]	2.21E+08	[g/a]	6.52E+06	[g/a]	2.21E+07	[g/a]	1.30E+08	[g/a]	3.91E+06	[g/a]	2.61E+06
		pm-1	3.91E+06								
		pm-2	2.61E+06								
								Σ pm			6.52E+06