Candidates should fill in the yellow spaces ONLY					
	Fresnel under 140 Qubits (without cryostat)	**Rubi500 to 1000 Qubits (with cryostat)**	**Basic GPU server**	**Joliot-Curie Rome 7Pflops/s**	Notes
Time required for running - on final machine (h)		*27*	*2,000*	*3*	Execution time for the particular use-case once fully prepared until final output
Total run emissions (without preparation)	0.0	0.1	0.2	1	
Total Use-case emissions (incl. preparation) tCO2 eq	**0.0**	**0.8**	**0.2**	**0.5**	

Reference computation					
	Fresnel under 140 Qubits (without cryostat)	**Rubi500 to 1000 Qubits (with cryostat)**	**Basic GPU server**	**Joliot-Curie Rome 7Pflops/s**	*Impact unit in kgCO2eq. /u*
CPU (units)	25	25	0	4,584	*20*
GPU (units)			3	4,584	*20*
RAM (TB)			0.128	1,146	*3,600*
SDD (PB)			0.015	0	*51,000*
HDD (PB)			0.15	5	*3,750*
Total hardware manufacturing (tCO2 eq)			2	4,328	*Total emissions for HW manufacturing, transport and disposal over lifetime*
Conservative lifetime hours amortizing hardware emissions	20,440	20,440	28,032	49,056	*Reference number of running hours over lifetime taken as the amortizing basis for the hardware emissions per run*
Equivalent manufacturing emissions (kgCO2 eq/ run hour)	**1.2**	**1.2**	**0.07**	**88**	
Nominal Power requirement (kW)	3	10	0.200	1,436	
Overhead provision for run power equiv (incl. add. net cooling, maintenance, etc.)	3.5	3.5	1.25	1.04	
Carbonation of electricity (kgCO2 eq/MWh)	85	85	85	85	*French electricity is taken as reference*
Equivalent run emissions (kgCO2 eq/ run hour)	**0.9**	**3.0**	**0.02**	**127**	
Total run emissions (kgCO2 eq/run hour)	**2.1**	**4.2**	**0.09**	**215**	
Additional emissions for preparation time (benchmarked on a typical algo running 1000h on Fresnel)					
Time required for preparation - standard server (h)	*5,000*	*5,000*	*0*	*0*	All preparation task executed on a
Time required for preparation - on final machine (h)	*500*	*500*			All preparation task executed on the
Time required for running - on final machine (h)	*1,000*	*100*	*100,000*	*100*	Execution time for the particular use-
Total time	1,500	600	100,000	100	

Total tCO2 eq emissions including preparation	**3.6**	**3.0**	**8.7**	**22**	Total emissions are computed
tCO2 eq emissions withoiut preparation	2.1	0.4	8.7	22	
Overhead ratio for preparation time	**171%**	**704%**	**100%**	**100%**	