Notes to Reader

I deliberately attempt to model conservatively to underestimate the impact of HTS.
You could consider this to be similar to an "under-promise and over-deliver" mentality.
As a result, you may consider many of the values stated below to be closer to the lower bounds of estimation.

Part 1: Data Centers & Electricity

How much electricity do data centers consume?	320	TWh	2021
How much electricity is consumed globally?	24877	TWh	2021
What percent of global electricity consumption is attributable to data centers?	1.29%		2021

Part 2: Data Centers & Emissions

How much emissions do data centers produce?	144	Mt CO2-eq	2021
How much (energy-related) emissions are produced globally?	36300	Mt CO2-eq	2021
What percent of global (energy-related) emissions is attributable to data centers?	0.40%		2021

Part 3: HTS Data Centers & Electricity

How much smaller would an HTS data center be?	6	x (multiplier)	2022
What percent of a data center's electricity consumption is attributable to ICT?	65%		2022
How much electricity would equivalent HTS ICT consume?	18%		2022
What percent of a data center's electricity consumption is attributable to non-ICT?	35%		2022
How much electricity would equivalent HTS non-ICT consume?	6%		2022
How much electricity would an equivalent HTS data center require?	24%		2022
How much electricity would HTS data centers have consumed?	77	TWh	2021
How much electricity would HTS data centers have saved in 2021?	243	TWh	2021
What percent of global electricity consumption would HTS data centers have saved in 2021?	0.98%		2021

Part 4: HTS Data Centers & Emissions

How much emissions would HTS data centers have produced?	35	Mt CO2-eq	2021
How much emissions would HTS data centers have eliminated in 2021?	110	Mt CO2-eq	2021
What percent of global (energy-related) emissions would HTS data centers have eliminated in 2021?	0.30%		2021

Part 5: Data Center Total Cost of Ownership (TCO) (Normalized)

Normalized data center TCO:	100.00%	2017
What percent of data center TCO is attributable to infrastructure?	19.65%	2017
What percent of data center TCO is attributable to electricity consumption?	17.38%	2017
What percent of data center TCO is attributable to maintenance?	8.08%	2017

Part 6: HTS Data Center TCO

What is the HTS equivalent TCO?	63.35%	2017
How much would HTS reduce the total cost of ownership (TCO) of data centers?	36.65%	2017

Part 7: 2030 Estimates

Please note that these 2030 estimates are naive and unreliable given the complexity of the subject and the unpredictability of ecosystem-level efficiency improvements over time. They are included only for curiosity's sake and should not be used for decision-making purposes. I will not label these estimates to be conservative, neutral, or aggressive.

How much electricity do data centers consume?	305-2610	TWh	2030E
How much electricity is consumed globally?	30000	TWh	2030E
What percent of global electricity consumption is attributable to data centers?	1-8.7%		2030E
What percent of global electricity consumption would HTS data centers save in 2030?	0.8-6.6%		2030E
How much emissions do data centers produce?	58-1178	Mt CO2-eq	2030E
How much (energy-related) emissions are produced globally?	40000	Mt CO2-eq	2030E
What percent of global (energy-related) emissions is attributable to data centers?	0.15-2.9%		2030E
What percent of global (energy-related) emissions would HTS data centers eliminate in 2030?	0.11-2.2%		2030E