

Component	Embodied CO2e (kg)	Operational CO2e (kg)	Total CO2e (kg)
LOCAL			
Router/Modem	20-80	50-150	70-230
LAN Cable (10m)	2-10	0	2-10
Home Network Total	40-120	60-180	100-300
CITY			
Fiber (per km)	25,000-40,000 kg	5,000-10,000 kg	40,000-50,000 kg
Mobile Base Station	5-20 t	50-150 t	60-170 t
Edge Data Center	500-2,000 t	5,000-20,000 t	6,000-22,000 t
INTERREGIONAL			
Hyperscale Data Center	50,000-200,000 t	500,000-2,000,000 t	0.5-2.2 Mt
Submarine Cable (per km)	20,000-60,000 kg	10,000-40,000 kg	30,000-100,000 kg
IXP (10 years)	low	2,000-50,000 t	2,000-50,000 t
DATA TRANSFER			
Data Volume			CO2e (kg)
1 GB			0.01-0.03
1 TB			10-30
1 PB			10,000-30,000