

Mandatory and Supplemental information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanisms used by crypto assets

In accordance with Article 66(6) of MiCA and the ESMA Draft Regulatory Technical Standards (2024)

S.3 Name of the crypto-asset	S.4 Consensus Mechanism	Energy			GHG Emissions		
		S.8 Energy Consumption (kWh)	S.10 Renewable energy consumption (%)	S.11 Energy Intensity (kWh per validated transaction)	S.12 Scope 1 DLT GHG emissions – Controlled (tCO2e)	S.13 Scope 2 DLT GHG emissions – Purchased (tCO2e)	S.14 GHG Intensity (kgCO2e/tx)
BTC	Proof of Work (PoW)	198,550,000,000	52.4%	18.505758	0	81201854.83	7.57222485
ETH	Proof of Stake (PoS)	4,280,000.00000	40%	0.000262	0	1324.170087	0.00008062
LTC	Proof of Work (PoW)	3,700,000,000.00	40%	0.160000	0	1548560.6	0.00039206
USDC	Token / No Consensus Algorithm	105,163.16623	-	-	-	-	-
SOL	Proof of Stake (PoS)	18,074,856.0000	40%	0.000009	0	2543.418675	0.000
XRP	Byzantine-Fault Tolerant (BFT)	492,328.00000	40%	0.000021	0	195.6447349	0.00041026
DOGE	Proof of Work (PoW)	8,550,000,000	40%	0.605000	0	3578964.748	0.25064018
LINK	Token / No Consensus Algorithm	296.88960	-	-	-	-	-
ZRX	Token / No Consensus Algorithm	8.71964	40%	-	-	-	-
PEPE	Token / No Consensus Algorithm	285.700	-	-	-	-	-
ATOM	Proof of Stake (PoS)	466,470.000	40%	0.000452	0	214.1097295	0.00020978
OP	Token / No Consensus Algorithm	212,629.75460	-	-	-	-	-
AAVE	Token / No Consensus Algorithm	1,152.11510	-	-	-	-	-
SHIB	Token / No Consensus Algorithm	270.10986	-	-	-	-	-
BCH	Proof of Work (PoW)	813,441,192	40%	0.119401	0	340460.9029	0.05016576
FET	Proof of Stake (PoS)	148,078.65052	-	-	-	-	-
BONK	Token / No Consensus Algorithm	97.68153	-	-	-	-	-
FTM	Byzantine Fault Tolerant	8,200.00000	-	-	-	-	-
AVAX	Proof of Stake (PoS)	3,358,400.0	-	-	-	-	-
WIF	Token / No Consensus Algorithm	158.08463	-	-	-	-	-
GRT	Token / No Consensus Algorithm	61.79000	-	-	-	-	-
UNI	Token / No Consensus Algorithm	26,867.68000	-	-	-	-	-
FLOKI	Token / No Consensus Algorithm	105.13000	-	-	-	-	-

SAMO	Token / No Consensus Algorithm	408.56000	-	-	-	-	-
ELON	Token / No Consensus Algorithm	107.00000	-	-	-	-	-
ENS	Token / No Consensus Algorithm	113,903.19028	-	-	-	-	-
QNT	Token / No Consensus Algorithm	41.83000	-	-	-	-	-
JTO	Token / No Consensus Algorithm	107.00000	-	-	-	-	-
RNDR	Token / No Consensus Algorithm	82.22423	-	-	-	-	-
CHILLGUY	Token / No Consensus Algorithm	107.00000	-	-	-	-	-
SAND	Token / No Consensus Algorithm	25.04000	-	-	-	-	-
ALI	Token / No Consensus Algorithm	46.11000	-	-	-	-	-
INJ	Proof of Stake (PoS)	109,236.50000	-	-	-	-	-
POPCAT	Token / No Consensus Algorithm	107.00000	-	-	-	-	-
CTX	Token / No Consensus Algorithm	0.98686	-	-	-	-	-
MATIC	Proof of Stake (PoS)	197,812.58000	-	-	-	-	-
ARB	Proof of Stake (PoS)	1,899,681.560	29%	0.000210	0	871.95	0.0001
MOODENG	Token / No Consensus Algorithm	73.04538	-	-	-	-	-
AMP	Token / No Consensus Algorithm	39.12000	-	-	-	-	-
MANA	Token / No Consensus Algorithm	29.65000	-	-	-	-	-
CUBE	Token / No Consensus Algorithm	0.18470	-	-	-	-	-
LDO	Token / No Consensus Algorithm	383,829.18000	-	-	-	-	-
CRV	Token / No Consensus Algorithm	144.16000	-	-	-	-	-
UMA	Token / No Consensus Algorithm	26.64920	-	-	-	-	-
GALA	Token / No Consensus Algorithm	31.65000	-	-	-	-	-
BAT	Token / No Consensus Algorithm	13.82000	-	-	-	-	-
HNT	Byzantine-Fault Tolerant (BFT)	40,971.94915	-	-	-	-	-
CHZ	Byzantine-Fault Tolerant (BFT)	8,421.69000	-	-	-	-	-
OXT	Token / No Consensus Algorithm	84.78000	-	-	-	-	-
PYTH	Token / No Consensus Algorithm	23.50751	-	-	-	-	-
STORJ	Token / No Consensus Algorithm	49.77000	-	-	-	-	-

LRC	Token / No Consensus Algorithm	47.25000	-	-	-	-	-
SUSHI	Token / No Consensus Algorithm	50.78239	-	-	-	-	-
LPT	Token / No Consensus Algorithm	81.18000	-	-	-	-	-
ANKR	Token / No Consensus Algorithm	45.59000	-	-	-	-	-
MKR	Token / No Consensus Algorithm	46.21388	-	-	-	-	-
IMX	Token / No Consensus Algorithm	54.52000	-	-	-	-	-
BOME	Token / No Consensus Algorithm	50.74000	-	-	-	-	-
SKL	Byzantine-Fault Tolerant (BFT)	9,187.05635	-	-	-	-	-
MASK	Token / No Consensus Algorithm	122.70000	-	-	-	-	-
IOTX	Proof of Stake (PoS)	17,181.62000	-	-	-	-	-
GOAT	Token / No Consensus Algorithm	38.71000	-	-	-	-	-
EUL	Token / No Consensus Algorithm	41.30000	-	-	-	-	-
APE	Token / No Consensus Algorithm	76.40000	-	-	-	-	-
COMP	Token / No Consensus Algorithm	3,339.32198	-	-	-	-	-
AXS	Token / No Consensus Algorithm	18.98000	-	-	-	-	-
GMT	Token / No Consensus Algorithm	14.54000	-	-	-	-	-
JAM	Token / No Consensus Algorithm	26.78000	-	-	-	-	-
REN	Token / No Consensus Algorithm	41.40000	-	-	-	-	-
YFI	Token / No Consensus Algorithm	351.80000	-	-	-	-	-
API3	Token / No Consensus Algorithm	7.44907	-	-	-	-	-
RARE	Token / No Consensus Algorithm	6.30000	-	-	-	-	-
GAL	Token / No Consensus Algorithm	36.89000	-	-	-	-	-
ERN	Byzantine-Fault Tolerant (BFT)	2,427.10512	-	-	-	-	-
MEW	Token / No Consensus Algorithm	0.98000	-	-	-	-	-
PNUT	Token / No Consensus Algorithm	3.43000	-	-	-	-	-
1INCH	Token / No Consensus Algorithm	13.71246	-	-	-	-	-
ALCX	Token / No Consensus Algorithm	58.80000	-	-	-	-	-
ASH	Token / No Consensus Algorithm	17.96000	-	-	-	-	-

AUDIO	Proof of Stake (PoS)	6,719.12155	-	-	-	-	-
BAL	Token / No Consensus Algorithm	303.96000	-	-	-	-	-
BICO	Token / No Consensus Algorithm	58.44000	-	-	-	-	-
BNT	Token / No Consensus Algorithm	11.84177	-	-	-	-	-
BOND	Token / No Consensus Algorithm	70.39000	-	-	-	-	-
CVC	Token / No Consensus Algorithm	39.44000	-	-	-	-	-
DPI	Token / No Consensus Algorithm	2.33000	-	-	-	-	-
ENJ	Token / No Consensus Algorithm	41.66000	-	-	-	-	-
FIDA	Token / No Consensus Algorithm	5.22000	-	-	-	-	-
GFI	Token / No Consensus Algorithm	2.98899	-	-	-	-	-
INDEX	Token / No Consensus Algorithm	11.14000	-	-	-	-	-
KNC	Token / No Consensus Algorithm	60.51000	-	-	-	-	-
KP3R	Token / No Consensus Algorithm	18.35000	-	-	-	-	-
LQTY	Token / No Consensus Algorithm	106.82000	-	-	-	-	-
LUSD	Token / No Consensus Algorithm	33.29000	-	-	-	-	-
MC	Token / No Consensus Algorithm	19.48000	-	-	-	-	-
MC02	Token / No Consensus Algorithm	46.97000	-	-	-	-	-
METIS	Token / No Consensus Algorithm	219.12000	-	-	-	-	-
MIR	Token / No Consensus Algorithm	1.54317	-	-	-	-	-
MOG	Token / No Consensus Algorithm	10.47000	-	-	-	-	-
MPL	Token / No Consensus Algorithm	36.07000	-	-	-	-	-
NMR	Token / No Consensus Algorithm	10.14980	-	-	-	-	-
ORCA	Token / No Consensus Algorithm	40.54000	-	-	-	-	-
PLA	Token / No Consensus Algorithm	6.54000	-	-	-	-	-
RAD	Token / No Consensus Algorithm	6.70397	-	-	-	-	-
RAY	Token / No Consensus Algorithm	151.08000	-	-	-	-	-
RBN	Token / No Consensus Algorithm	10.27000	-	-	-	-	-
REVV	Token / No Consensus Algorithm	13.46000	-	-	-	-	-

RLY	Token / No Consensus Algorithm	10.28000	-	-	-	-	-
SBR	Token / No Consensus Algorithm	8.47000	-	-	-	-	-
SLP	Token / No Consensus Algorithm	3.30000	-	-	-	-	-
SPELL	Token / No Consensus Algorithm	20.10000	-	-	-	-	-
TOKE	Token / No Consensus Algorithm	9.78000	-	-	-	-	-
TRU	Token / No Consensus Algorithm	4.19757	-	-	-	-	-
WCFG	Token / No Consensus Algorithm	75.91000	-	-	-	-	-
WETH	Token / No Consensus Algorithm	89,746.280	-	-	-	-	-