

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	Bitcoin
S.4	Consensus Mechanism	Proof of Work (PoW)
S.5	Incentive Mechanisms and Applicable Fees	A Proof-of-Work (PoW) consensus mechanism incentivizes miners to secure the network by publishing updates to the ledger in the form of blocks, containing newly submitted and verified transactions. Miners compete to solve cryptographic puzzles, and the first to succeed earns newly minted crypto-assets (block reward) and user-paid transaction fees. Misconduct, such as attempting to add invalid blocks or rewrite the history of the ledger, results in wasted computational resources and opportunity costs, creating an economic penalty that discourages dishonest behavior.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	138979004662.95459
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
Supplementary key indicators on energy and GHG emissions		
S.10	Renewable energy consumption (share of energy from renewable generation resources) in %	34.912904615
S.11	Energy intensity (energy used per validated transaction) in kWh	3.96319
S.12	Scope 1 DLT GHG emissions – Controlled (per year) in t CO ₂ eq	0
S.13	Scope 2 DLT GHG emissions – Purchased (per year) in t CO ₂ eq	54697884.3066
S.14	GHG intensity (emissions per validated transaction) in kg CO ₂ eq	1.55979
Sources and methodologies		
S.15	Key energy sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024

N	Field	Content
		methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
S.16	Key GHG sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for Bitcoin (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
LCX AG	18/03/2025	LI	Link
Crypto Risk Metrics GmbH	26/05/2026	DE	Link
Crypto Risk Metrics GmbH	31/03/2025	DE	Link

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	Ethereum
S.4	Consensus Mechanism	Proof of Stake (PoS)
S.5	Incentive Mechanisms and Applicable Fees	A Proof-of-Stake (PoS) consensus mechanism incentivizes validators to secure the network and validate transactions by staking their own crypto-assets as collateral. Validators are selected to create new blocks based on the amount of cryptocurrency they hold and are willing to 'stake', rather than through computational power. If validators act honestly, they earn rewards through transaction fees; however, malicious behavior or proposing invalid blocks can lead to a reduction of their staked assets, creating an economic penalty that discourages misconduct and ensures network integrity.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	4724911.0562
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
Supplementary key indicators on energy and GHG emissions		
S.10	Renewable energy consumption (share of energy from renewable generation resources) in %	30.191708106
S.11	Energy intensity (energy used per validated transaction) in kWh	0.00026
S.12	Scope 1 DLT GHG emissions – Controlled (per year) in t CO ₂ eq	0
S.13	Scope 2 DLT GHG emissions – Purchased (per year) in t CO ₂ eq	1539.52946
S.14	GHG intensity (emissions per validated transaction) in kg CO ₂ eq	0.00008
Sources and methodologies		
S.15	Key energy sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available

N	Field	Content
		at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
S.16	Key GHG sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for Ethereum (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
Crypto Risk Metrics GmbH	30/06/2026	DE	Link
LCX AG	18/03/2025	LI	Link
Crypto Risk Metrics GmbH	05/05/2025	DE	Link

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	XRP
S.4	Consensus Mechanism	Byzantine-Fault Tolerant (BFT)
S.5	Incentive Mechanisms and Applicable Fees	Byzantine-Fault-Tolerant (BFT) consensus mechanisms, such as Proof of Authority (PoA), Practical Byzantine Fault Tolerance (PBFT), Byzantine Agreement (BA) or similar mechanisms, secure the network through a predefined set of validators who are trusted to validate transactions and add blocks to the ledger. Unlike open networks where anyone can participate (as in Proof-of-Work or Proof-of-Stake), BFT and similar mechanisms operate with known and vetted participants, often selected by a governing entity. Validators are incentivized to maintain the network's integrity through monetary rewards or external motivations, such as institutional trust or regulatory obligations. Malicious actions, such as submitting invalid transactions or failing to participate in consensus, can result in penalties, removal from the validator set, or other repercussions, creating an economic and reputational deterrent to dishonest behavior. Validators reach consensus by verifying transactions and proposing blocks, and, as long as a majority of validators act honestly, the network remains secure.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	410499.97952
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
Supplementary key indicators on energy and GHG emissions		
S.10	Renewable energy consumption (share of energy from renewable generation resources) in %	29.37046898
S.11	Energy intensity (energy used per validated transaction) in kWh	0.00002
S.12	Scope 1 DLT GHG emissions – Controlled (per year) in t CO ₂ eq	0
S.13	Scope 2 DLT GHG emissions –	178.22919

N	Field	Content
	Purchased (per year) in t CO ₂ eq	
S.14	GHG intensity (emissions per validated transaction) in kg CO ₂ eq	0.00001
Sources and methodologies		
S.15	Key energy sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
S.16	Key GHG sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for XRP (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
LCX AG	18/03/2025	LI	Link
Crypto Risk Metrics GmbH	06/01/2026	DE	Link

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	Cardano
S.4	Consensus Mechanism	Proof of Stake (PoS)
S.5	Incentive Mechanisms and Applicable Fees	A Proof-of-Stake (PoS) consensus mechanism incentivizes validators to secure the network and validate transactions by staking their own crypto-assets as collateral. Validators are selected to create new blocks based on the amount of cryptocurrency they hold and are willing to 'stake', rather than through computational power. If validators act honestly, they earn rewards through transaction fees; however, malicious behavior or proposing invalid blocks can lead to a reduction of their staked assets, creating an economic penalty that discourages misconduct and ensures network integrity.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	387605.68516
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
Supplementary key indicators on energy and GHG emissions		
S.10	Renewable energy consumption (share of energy from renewable generation resources) in %	37.044151261
S.11	Energy intensity (energy used per validated transaction) in kWh	0.00013
S.12	Scope 1 DLT GHG emissions – Controlled (per year) in t CO ₂ eq	0
S.13	Scope 2 DLT GHG emissions – Purchased (per year) in t CO ₂ eq	128.85804
S.14	GHG intensity (emissions per validated transaction) in kg CO ₂ eq	0.00004
Sources and methodologies		
S.15	Key energy sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available

N	Field	Content
		at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
S.16	Key GHG sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for Cardano (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
LCX AG	18/03/2025	LI	Link

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	Dogecoin
S.4	Consensus Mechanism	Proof of Work (PoW)
S.5	Incentive Mechanisms and Applicable Fees	A Proof-of-Work (PoW) consensus mechanism incentivizes miners to secure the network by publishing updates to the ledger in the form of blocks, containing newly submitted and verified transactions. Miners compete to solve cryptographic puzzles, and the first to succeed earns newly minted crypto-assets (block reward) and user-paid transaction fees. Misconduct, such as attempting to add invalid blocks or rewrite the history of the ledger, results in wasted computational resources and opportunity costs, creating an economic penalty that discourages dishonest behavior.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	5831862789.88769
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
Supplementary key indicators on energy and GHG emissions		
S.10	Renewable energy consumption (share of energy from renewable generation resources) in %	34.912904615
S.11	Energy intensity (energy used per validated transaction) in kWh	0.3813
S.12	Scope 1 DLT GHG emissions – Controlled (per year) in t CO ₂ eq	0
S.13	Scope 2 DLT GHG emissions – Purchased (per year) in t CO ₂ eq	2295242.77388
S.14	GHG intensity (emissions per validated transaction) in kg CO ₂ eq	0.15007
Sources and methodologies		
S.15	Key energy sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024

N	Field	Content
		methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
S.16	Key GHG sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for Dogecoin (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
LCX AG	14/04/2025	LI	Link

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	Hedera
S.4	Consensus Mechanism	Byzantine-Fault Tolerant (BFT)
S.5	Incentive Mechanisms and Applicable Fees	Byzantine-Fault-Tolerant (BFT) consensus mechanisms, such as Proof of Authority (PoA), Practical Byzantine Fault Tolerance (PBFT), Byzantine Agreement (BA) or similar mechanisms, secure the network through a predefined set of validators who are trusted to validate transactions and add blocks to the ledger. Unlike open networks where anyone can participate (as in Proof-of-Work or Proof-of-Stake), BFT and similar mechanisms operate with known and vetted participants, often selected by a governing entity. Validators are incentivized to maintain the network's integrity through monetary rewards or external motivations, such as institutional trust or regulatory obligations. Malicious actions, such as submitting invalid transactions or failing to participate in consensus, can result in penalties, removal from the validator set, or other repercussions, creating an economic and reputational deterrent to dishonest behavior. Validators reach consensus by verifying transactions and proposing blocks, and, as long as a majority of validators act honestly, the network remains secure.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	46849.91764
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for Hedera (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
LCX AG	18/03/2025	LI	Link
Hedera Hashgraph,	14/07/2025	IE	Link

Issuer	Last Update	Member State	White paper URL
LLC			

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	Litecoin
S.4	Consensus Mechanism	Proof of Work (PoW)
S.5	Incentive Mechanisms and Applicable Fees	A Proof-of-Work (PoW) consensus mechanism incentivizes miners to secure the network by publishing updates to the ledger in the form of blocks, containing newly submitted and verified transactions. Miners compete to solve cryptographic puzzles, and the first to succeed earns newly minted crypto-assets (block reward) and user-paid transaction fees. Misconduct, such as attempting to add invalid blocks or rewrite the history of the ledger, results in wasted computational resources and opportunity costs, creating an economic penalty that discourages dishonest behavior.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	4974198668.90398
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
Supplementary key indicators on energy and GHG emissions		
S.10	Renewable energy consumption (share of energy from renewable generation resources) in %	34.912904615
S.11	Energy intensity (energy used per validated transaction) in kWh	0.18044
S.12	Scope 1 DLT GHG emissions – Controlled (per year) in t CO ₂ eq	0
S.13	Scope 2 DLT GHG emissions – Purchased (per year) in t CO ₂ eq	1957692.41527
S.14	GHG intensity (emissions per validated transaction) in kg CO ₂ eq	0.07102
Sources and methodologies		
S.15	Key energy sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024

N	Field	Content
		methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
S.16	Key GHG sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for Litecoin (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
Crypto Risk Metrics GmbH	25/05/2026	DE	Link
Crypto Risk Metrics GmbH	22/04/2025	DE	Link

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	Solana
S.4	Consensus Mechanism	Proof of Stake (PoS)
S.5	Incentive Mechanisms and Applicable Fees	A Proof-of-Stake (PoS) consensus mechanism incentivizes validators to secure the network and validate transactions by staking their own crypto-assets as collateral. Validators are selected to create new blocks based on the amount of cryptocurrency they hold and are willing to 'stake', rather than through computational power. If validators act honestly, they earn rewards through transaction fees; however, malicious behavior or proposing invalid blocks can lead to a reduction of their staked assets, creating an economic penalty that discourages misconduct and ensures network integrity.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	7086436.26026
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
Supplementary key indicators on energy and GHG emissions		
S.10	Renewable energy consumption (share of energy from renewable generation resources) in %	33.627718371
S.11	Energy intensity (energy used per validated transaction) in kWh	0.00001
S.12	Scope 1 DLT GHG emissions – Controlled (per year) in t CO ₂ eq	0
S.13	Scope 2 DLT GHG emissions – Purchased (per year) in t CO ₂ eq	2266.88216
S.14	GHG intensity (emissions per validated transaction) in kg CO ₂ eq	0
Sources and methodologies		
S.15	Key energy sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available

N	Field	Content
		at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
S.16	Key GHG sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for Solana (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
LCX AG	18/03/2025	LI	Link

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	Sui
S.4	Consensus Mechanism	Proof of Stake (PoS)
S.5	Incentive Mechanisms and Applicable Fees	A Proof-of-Stake (PoS) consensus mechanism incentivizes validators to secure the network and validate transactions by staking their own crypto-assets as collateral. Validators are selected to create new blocks based on the amount of cryptocurrency they hold and are willing to 'stake', rather than through computational power. If validators act honestly, they earn rewards through transaction fees; however, malicious behavior or proposing invalid blocks can lead to a reduction of their staked assets, creating an economic penalty that discourages misconduct and ensures network integrity.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	1105748.65368
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
Supplementary key indicators on energy and GHG emissions		
S.10	Renewable energy consumption (share of energy from renewable generation resources) in %	29.07
S.11	Energy intensity (energy used per validated transaction) in kWh	0.00005
S.12	Scope 1 DLT GHG emissions – Controlled (per year) in t CO ₂ eq	0
S.13	Scope 2 DLT GHG emissions – Purchased (per year) in t CO ₂ eq	507.53863
S.14	GHG intensity (emissions per validated transaction) in kg CO ₂ eq	0.00002
Sources and methodologies		
S.15	Key energy sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available

N	Field	Content
		at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.
S.16	Key GHG sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for Sui (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
LCX AG	12/09/2025	LI	Link
Crypto Risk Metrics GmbH	02/04/2026	DE	Link

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	USDC
S.4	Consensus Mechanism	Token / No Consensus Algorithm
S.5	Incentive Mechanisms and Applicable Fees	Tokens do not have an own consensus mechanism, but rely on the consensus mechanism of one or multiple underlying crypto-asset networks. Depending on the token design, incentive mechanisms arise from the utility, scarcity, or governance rights.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	86089.95992
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for USDC (MiCA Art. 66 (3))

Issuer	Last Update	Member State	White paper URL
Circle Internet Financial Europe SAS	16/12/2025	FR	Link

Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

N	Field	Content
General information		
S.1	Name	Virtu Financial Ireland Limited
S.2	Relevant legal entity identifier	549300XG5LFGN1IGYC71
S.3	Name of the cryptoasset	Tether
S.4	Consensus Mechanism	Token / No Consensus Algorithm
S.5	Incentive Mechanisms and Applicable Fees	Tokens do not have an own consensus mechanism, but rely on the consensus mechanism of one or multiple underlying crypto-asset networks. Depending on the token design, incentive mechanisms arise from the utility, scarcity, or governance rights.
S.6	Beginning of the period to which the disclosure relates	2026-08-21
S.7	End of the period to which the disclosure relates	2026-09-03
Mandatory key indicator on energy consumption		
S.8	Energy consumption (per year) in kWh	23880.67885
Sources and methodologies		
S.9	Energy consumption sources and methodologies	Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: carbon-ratings.com/dl/whitepaper-mica-methods-2024 and docs.mica.api.carbon-ratings.com . We do not account for any offsetting of energy consumption or other market-based mechanism as of today.

List of hyperlinks to crypto-asset white papers for Tether (MiCA Art. 66 (3))

No whitepaper published to this date.