

The **MiCA Crypto Alliance** has prepared an ESG Factsheet with mandatory, supplementary and optional MiCA-compliant indicators for Astar (ASTR).

The **MiCA Crypto Alliance** enables L1 and L2 crypto asset projects, exchanges, and other CASPs to produce state-of-the-art, uniform, MiCA white papers and MiCA sustainability indicators, setting and following best practices.



Exchanges and other CASPs members of the Alliance receive a downloadable, multi-crypto asset file with sustainability indicators with values as the below.

### **Article 3(1) CDR 2025/422**

*"Information that crypto-asset service providers are to make publicly available on their website (...)  
It shall be in form of a downloadable file and presented in a way that is easy to read, with characters of readable size and a style of writing that facilitates its understanding and that facilitates comparisons"*

**Mandatory Information on principal adverse impacts on the climate**

N	Field	Content																
<b>General Information</b>																		
S.1	Name	FalconX Limited																
S.2	Relevant legal entity identifier	984500F6A0762F9LA923																
S.3	Name of the crypto-asset	Astar / ASTR																
S.4	Consensus Mechanism	Nominated Proof of Stake (NPoS)																
S.5	Incentive Mechanisms and Applicable Fees	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Token</td> <td style="text-align: center;">No</td> </tr> <tr> <td style="text-align: center;">Block Producer Rewards</td> <td style="text-align: center;">Yes</td> </tr> <tr> <td style="text-align: center;">Staking Rewards</td> <td style="text-align: center;">Yes</td> </tr> <tr> <td style="text-align: center;">Delegation Rewards</td> <td style="text-align: center;">Yes</td> </tr> <tr> <td style="text-align: center;">Tx Fees</td> <td style="text-align: center;">Yes</td> </tr> <tr> <td style="text-align: center;">Gas Fees</td> <td style="text-align: center;">Yes</td> </tr> <tr> <td style="text-align: center;">Tx Burn</td> <td style="text-align: center;">Yes</td> </tr> <tr> <td style="text-align: center;">Gov Rights</td> <td style="text-align: center;">Yes</td> </tr> </table>	Token	No	Block Producer Rewards	Yes	Staking Rewards	Yes	Delegation Rewards	Yes	Tx Fees	Yes	Gas Fees	Yes	Tx Burn	Yes	Gov Rights	Yes
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S.6	Beginning of the period to which the disclosure relates	2026-01-01																
S.7	End of the period to which the disclosure relates	2026-06-23																
<b>Mandatory key indicator on energy consumption</b>																		
S.8	Energy consumption	57,170.10953 kWh per calendar year																

N	Field	Content
<b>General Information</b>		
<b>Sources and methodologies</b>		
<b>S.9</b>	<b>Energy consumption sources and methodologies</b>	<p>Data provided by the MiCA Crypto Alliance as a third party, with no deviations from the calculation guidance of Commission Delegated Regulation (EU) 2025/422, Article 6(5). As the base layer is a decentralised network, estimates on individual node power draw are used.</p> <p>Full methodology available at:  <a href="http://www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting">www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting</a></p>

**Supplementary Information on the principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism**

N	Field	Content
<b>Supplementary key indicators on energy and GHG emissions</b>		
S.10	Renewable energy consumption	37.0818947991%
S.11	Energy intensity	0.01243 kWh per transaction
S.12	Scope 1 DLT GHG emissions – controlled	0 t CO <sub>2</sub> eq per calendar year
S.13	Scope 2 DLT GHG emissions – purchased	16.56396 t CO <sub>2</sub> eq per calendar year
S.14	GHG intensity	0.00360 kg CO <sub>2</sub> eq per transaction
<b>Sources and methodologies</b>		
S.15	Key energy source and methodologies	Data provided by the MiCA Crypto Alliance as a third party, with no deviations from the calculation guidance of Commission Delegated Regulation (EU) 2025/422, Article 6(5). Full methodology available at: <a href="http://www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting">www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting</a>
S.16	Key GHG sources and methodologies	Data provided by the MiCA Crypto Alliance as a third party, with no deviations from the calculation guidance of Commission Delegated Regulation (EU) 2025/422, Article 6(5). Full methodology available at: <a href="http://www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting">www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting</a>

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

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<b>Optional Indicators</b>																										
<b>S.17</b>	<b>Energy mix</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th data-bbox="608 595 948 663">Energy source</th> <th data-bbox="948 595 1430 663">Percentage {DECIMAL-11/10}</th> </tr> </thead> <tbody> <tr> <td data-bbox="608 663 948 730">Bioenergy</td> <td data-bbox="948 663 1430 730">4.4653041299%</td> </tr> <tr> <td data-bbox="608 730 948 797">Coal</td> <td data-bbox="948 730 1430 797">15.4052036227%</td> </tr> <tr> <td data-bbox="608 797 948 864">Flared Methane</td> <td data-bbox="948 797 1430 864">0.0000000000%</td> </tr> <tr> <td data-bbox="608 864 948 931">Gas</td> <td data-bbox="948 864 1430 931">27.3303590699%</td> </tr> <tr> <td data-bbox="608 931 948 999">Hydro</td> <td data-bbox="948 931 1430 999">11.2838701054%</td> </tr> <tr> <td data-bbox="608 999 948 1066">Nuclear</td> <td data-bbox="948 999 1430 1066">17.6037959447%</td> </tr> <tr> <td data-bbox="608 1066 948 1133">Other Fossils</td> <td data-bbox="948 1066 1430 1133">2.5787465637%</td> </tr> <tr> <td data-bbox="608 1133 948 1200">Other Renewables</td> <td data-bbox="948 1133 1430 1200">0.4170598200%</td> </tr> <tr> <td data-bbox="608 1200 948 1267">Solar</td> <td data-bbox="948 1200 1430 1267">6.6534841933%</td> </tr> <tr> <td data-bbox="608 1267 948 1335">Vented Methane</td> <td data-bbox="948 1267 1430 1335">0.0000000000%</td> </tr> <tr> <td data-bbox="608 1335 948 1402">Wind</td> <td data-bbox="948 1335 1430 1402">14.2621765505%</td> </tr> </tbody> </table>	Energy source	Percentage {DECIMAL-11/10}	Bioenergy	4.4653041299%	Coal	15.4052036227%	Flared Methane	0.0000000000%	Gas	27.3303590699%	Hydro	11.2838701054%	Nuclear	17.6037959447%	Other Fossils	2.5787465637%	Other Renewables	0.4170598200%	Solar	6.6534841933%	Vented Methane	0.0000000000%	Wind	14.2621765505%
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<b>S.19</b>	<b>Carbon intensity</b>	0.28973 kg CO <sub>2</sub> eq per kWh																								
<b>S.22</b>	<b>Generation of waste electrical and electronic equipment (WEEE)</b>	0.08725 t per calendar year																								
<b>S.23</b>	<b>Non-recycled WEEE ratio</b>	66.1683802752%																								
<b>S.24</b>	<b>Generation of hazardous waste</b>	0.00004 t per calendar year																								

S.25	<b>Generation of waste (all types)</b>	0.08725 t per calendar year
S.26	<b>Non-recycled waste ratio (all types)</b>	66.1683802752%
S.27	<b>Waste intensity (all types)</b>	0.01898 g per transaction
S.29	<b>Impact of the use of equipment on natural resources</b>	Land use: 1,768.24232 m <sup>2</sup>
S.31	<b>Water use</b>	309.44831 m <sup>3</sup> per calendar year
S.32	<b>Non-recycled water ratio</b>	78.9049456920%
<b>Sources and methodologies</b>		
S.33	<b>Other energy sources and methodologies</b>	Data provided by the MiCA Crypto Alliance as a third party, with no deviations from the calculation guidance of Commission Delegated Regulation (EU) 2025/422, Article 6(5). Full methodology available at: <a href="http://www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting">www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting</a>
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S.35	<b>Waste sources and methodologies</b>	Data provided by the MiCA Crypto Alliance as a third party, with no deviations from the calculation guidance of Commission Delegated Regulation (EU) 2025/422, Article 6(5). As the base layer is a decentralised network, estimates on individual node weight, hazardous components and depreciation rate are used. Full methodology available at: <a href="http://www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting">www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting</a>

S.36	<b>Natural resources sources and methodologies</b>	Data provided by the MiCA Crypto Alliance as a third party, with no deviations from the calculation guidance of Commission Delegated Regulation (EU) 2025/422, Article 6(5). Usage of natural resources is approximated through land use metrics. Land use, water use and water recycling are calculated based on energy mix-specific estimates of purchased electricity land intensity, purchased electricity water intensity, and water recycling rates. Full methodology available at: <a href="http://www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting">www.micacryptoalliance.com/methodologies/mica-methodologies-for-standardized-sustainability-reporting</a>
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