



USE CASE · ENERGY RWA

IoT-Verified Asset Tokenisation

1CAD Protocol — Compliance Layer for Real World Energy Asset Tokenisation

International Digital Asset Association (IDAA) · 1cad.us · May 2026

EXECUTIVE SUMMARY

When institutional investors want to buy tokens backed by solar farms, biogas plants, or other green infrastructure, they need verified proof that the underlying asset performs as claimed. IoT sensor data exists — but it stops at the dashboard. Banks, regulators, and institutional investors cannot use a dashboard reading as evidence. **1CAD provides the compliance layer that converts IoT sensor streams into institutional-grade financial evidence — making Real World Assets bankable.**

THE INSTITUTIONAL GAP

- The Oracle Problem**
RWA tokenisation requires continuous proof of asset performance. IoT sensors provide the data — but no standard exists for making that data financially verifiable and legally actionable.
- Bank Acceptance Gap**
Banks cannot accept a dashboard screenshot as evidence of asset performance. They need structured, cryptographically verifiable, legally formatted documentation.
- MiCA Compliance for RWA**
Under MiCA, Asset-Referenced Tokens backed by energy assets must meet financial-grade disclosure and verification standards. No automated compliance workflow currently exists.
- Green Finance Bottleneck**
EU green infrastructure projects seeking digital investment face a critical barrier: banks cannot verify source of funds or asset performance without structured institutional documentation.

1CAD SOLUTION ARCHITECTURE

LAYER	CHALLENGE	1CAD RESPONSE
Data Layer	IoT sensor data stops at the dashboard — not usable as financial evidence.	Cryptographic timestamping of IoT data streams. Each sensor reading becomes an immutable, verifiable data point.
Compliance	No standard for converting sensor data into MiCA-compliant asset verification.	1CAD AML + Proof of Control layer applied to asset wallet. Compliance package generated automatically per transaction.
Legal	Investors cannot verify asset ownership or performance through legal channels.	Legal Enforceability Layer: title documentation linking physical asset to token. Export-ready institutional documentation.

Finance	Digital capital cannot reach EU green infrastructure without institutional compliance bridge.	Corporate Resolution (Wyoming LLC) + 1CAD Certificate: converts crypto investment into bank-readable business transaction.
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INTEGRATION ARCHITECTURE



VALUE PROPOSITION

FOR ASSET OWNERS	FOR INVESTORS	FOR IoT MANUFACTURERS
— IoT data becomes institutional-grade financial evidence.	— Verified proof of energy asset performance.	— Hardware data opens institutional financial markets.
— RWA tokens accepted by regulated investment vehicles.	— MiCA-aligned RWA token due diligence documentation.	— Sensor streams become bankable evidence.
— Faster access to green capital at lower cost.	— Good Faith Acquisition protection on every investment.	— 1CAD partnership unlocks new revenue streams.

CORPORATE MEMBERSHIP

Energy asset operators, RWA tokenisation platforms, IoT manufacturers, and green finance investors are invited to join IDAA as **Founding Corporate Members** of the 1CAD standard. **Corporate Membership: EUR 10,000 per year** · 1CAD Accredited Partner status · RWA compliance advisory · Protocol working group access Contact: **compliance@idaa.uk · 1cad.us**



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