CT-IC-006 — Smart Grid & IoT for Energy

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eu_taxonomy_aligned	Y
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Description

Smart grid infrastructure, advanced metering, demand-response systems, and IoT sensor networks applied to energy generation, distribution, and consumption management. Enables integration of distributed renewable energy, real-time grid balancing, and energy efficiency optimization through digital infrastructure.

Colombia Context

Colombia's electricity system operator XM manages the SIN (Sistema Interconectado Nacional) and provides real-time grid data. CREG (Comision de Regulacion de Energia y Gas) issued Resolucion 40072 on smart metering standards for distributed generation. The energy transition law (Ley 2099 de 2021) promotes grid modernization to accommodate growing FNCER (non-conventional renewable energy) capacity. UPME's expansion plans include significant smart grid investments. IoT for distributed generation is growing with Colombia's autogeneracion and prosumer regulations.

EUDR Relevance

No direct EUDR relevance. Smart grid and energy IoT technologies do not intersect with commodity supply chain traceability or deforestation monitoring.

CTH Data Coverage

Good CTH coverage. CLP cohort includes energy-tech startups working on smart grid solutions. Sustenttia tracks energy efficiency metrics. The CTH agents stack monitors energy transition policy developments. REIN Hub maps energy technology providers.

Green Finance Alignment

Strong green finance alignment across all frameworks. TVC energy sector explicitly includes smart grid activities. CBI certifies smart grid investments under its energy criteria. EU Taxonomy includes smart grid infrastructure as a climate mitigation activity. IEA ETCS covers smart grids and digital energy technologies. CPI GLCF tracks smart grid as a core climate finance category.


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