



My journey towards hourly matching

WHAT?	HOW?	WHO CAN HELP?
 1. KNOWLEDGE BUILDING: Build knowledge, skills, and competencies necessary for transitioning towards hourly matched CFE		
1. Understand hourly energy matching, granular certificates and geographical correlation in the context of decarbonisation and corporate sourcing of energy.	1. Join the European CFE Hub at Eurelectric to connect with industry experts and thought leaders to gain insights and perspectives on the latest advancements in CFE 2. Follow the CFE Hub and its partners for events, training sessions, workshops, webinars, and online courses to facilitate knowledge sharing and best practices.	<ul style="list-style-type: none"> ▪ Electricity Maps ▪ EnergyTag ▪ European CFE Hub ▪ FlexIDAO ▪ RE-Source
2. Explore the environmental, social, and economic benefits.	1. Read available empirical research papers by TU Berlin, Princeton, the International Energy Agency (IEA) and others available in the CFE Hub Library	<ul style="list-style-type: none"> ▪ European CFE Hub Library
3. Learn about global 24/7 CFE forums if your operations are (also) beyond Europe. Find out who else is joining the journey and what they are doing.	1. Discover and consider joining the UN 24/7 Carbon-free Energy Compact coordinated by Sustainable Energy for All to signal your corporate commitment to the principles of 24/7 CFE 2. Read about other global organisations active in hourly CFE, including EnergyTag and the Global Renewables Alliance.	<ul style="list-style-type: none"> ▪ SE4All 24/7 CFE Compact ▪ EnergyTag ▪ Global Renewables Alliance



2. FEASIBILITY: Understand where you are today in your journey towards hourly CFE and assess the gaps

1.	Identify and assign a 24/7 CFE responsible or team within your organisation to support the research into the transition to granular CFE procurement even if for a single load centre.	<ol style="list-style-type: none"> Align internally on the role of hourly CFE matching in contributing to your company's sustainability goals. Select regional scope: which facilities, which consumption sites, which markets, etc. 	
2.	Understand your current load profile and collect energy consumption data.	<ol style="list-style-type: none"> Assess access to energy consumption data at specific load site(s). Acquire as much detailed information as available and possible on energy consumption from procurement teams. Alternatively, get in touch with your energy supplier to understand your load profile. Optionally, conduct an energy audit to assess consumption patterns, energy sources, and inefficiencies. Identify technology capabilities needed for getting more granular, near real-time tracking and estimation of consumption at the load point(s) (e.g., smart meters, AI-based methods). 	<ul style="list-style-type: none"> ▪ FlexiDAO ▪ Granular Energy ▪ SoftServe
3.	Baseline your current CFE score:	<ol style="list-style-type: none"> Work with a service provider or your energy supplier to get an initial 24/7 CFE score estimation. Assess correlation of your electricity load data with any existing clean energy contracts and hourly carbon intensity of local electricity grid. Together, these can tell you how carbon free your current load profile actually is. Don't panic if your score is lower than expected! Alliander revealed a 58.9% hourly CFE matching score in its 2022 annual report, which is a positive starting point. Conduct simulations to anticipate and estimate your energy needs. 	<ul style="list-style-type: none"> ▪ Blok-Z ▪ ElectricityMaps ▪ FlexiDAO ▪ Granular Energy ▪ SoftServe
4.	Explore existing hourly CFE matching energy supply solutions on offer.	<ol style="list-style-type: none"> Ask your supplier if they can deliver an hourly CFE matching solution, have a 24/7 CFE tariff, or can provide time-stamped Energy Attribute Certificates (EACs) 	<ul style="list-style-type: none"> ▪ Blok Z ▪ Granular Energy ▪ Your energy supplier

		2. There are supplier-side solutions for streamlining granular data certificates.	
5.	Assess potential CFE resources.	<ol style="list-style-type: none"> Identify opportunities to move towards granular procurement: <ol style="list-style-type: none"> Procuring local CFE connected to the same grid where you consume electricity Diversifying portfolio of procurable sources of CFE Purchasing hourly time stamped EACs instead of annual EACs Use supply curves and prices estimates of the different CFE resources to identify areas of cost-effective and time-based CFE matching with load profile. Consider potential load shifts and other demand-side flexibilities to match available CFE if possible. Explore these possibilities with your energy supplier. 	<ul style="list-style-type: none"> ▪ LevelTen Energy ▪ Powerledger
6.	Compare costs and benefits of shifting towards greater hourly CFE matching into an analysis that can be presented to internal stakeholders for buy-in, then company leadership for a decision.	<ol style="list-style-type: none"> Cost parameters: <ol style="list-style-type: none"> data availability data management procurement options Benefit parameters: <ol style="list-style-type: none"> hedging against risks of volatile market prices transparency and confidence in corporate reporting of CFE score quantification of future green brand value local grid decarbonisation 	<ul style="list-style-type: none"> ▪ Accenture ▪ AFRY ▪ EY ▪ FlexiDAO ▪ SoftServe
 3. PLANNING: Develop detailed strategy and roadmap to transition to 24/7 CFE			
1.	Set target CFE percentage: Define clear objectives, granularity, and timelines for the transition towards hourly matched CFE.	1. Contact your finance/legal expert for the analysis & work with your supplier on a CFE delivery plan.	<ul style="list-style-type: none"> ▪ FlexiDAO ▪ Granular Energy

1.	Generate the optimal portfolio of renewable energy PPAs to meet granular CFE targets cost-effectively.	1. Assess available PPA combinations based on your CFE target, region, load and production, annual and excess CFE score, and resources.	▪ LevelTen Energy
2.	Plan necessary financial, human, and technical resources.		
3.	Engage with staff, shareholders, partners & customers to explain the value of granular matching, gauge support and potential challenges.		



4. PROCUREMENT: Secure the necessary resources, equipment, and services to transition towards 24/7 CFE

1.	Identify and select service providers to support the granular CFE procurement.	1. Contact lawyers to draft/validate suitable 24/7 CFE supply agreement. Depending on your company's CFE objectives, risk appetite and market availability, possible options are: <ul style="list-style-type: none"> a. 24/7 Attribute Purchase Agreement b. 24/7 Power Purchase Agreement (PPA) c. 24/7 Energy Supply Agreement 2. See Eurelectric hourly matched contracting principles. Link to be added at a later stage	▪ DLAPiper ▪ PexaPark
2.	Sign a suitable 24/7 CFE Supply Agreement with your local energy supplier.	1. Upgrade your contractual arrangements to include your CFE ambition	
3.	If applicable, develop or upgrade infrastructure to support CFE eg. installing smart meters & storage solutions.	1. Contact your energy supplier and/or energy infrastructure developers.	



5. DIGITALISATION: Implement digital solutions to optimise, monitor, and manage the 24/7 CFE transition

1.	If applicable, upgrade your digital platform.	1. Together with your IT team and consultant, contact your cloud provider to ensure capability of:	▪ Accenture ▪ AFRY
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		<ol style="list-style-type: none"> a. Data Integration and Standardisation: to deal with data in different formats, structures, standards & context b. Latency and Synchronisation: to accommodate data streams with different frequencies. c. Data Quality and Accuracy: to align data points of varying quality. Scalability and Performance: to account for exponential growth foreseen. d. Security and Compliance: to ensure a security strategy consistent with modern security standards. 	<ul style="list-style-type: none"> ▪ FlexiDAO ▪ Softserve
2.	If applicable, utilise advanced energy management system for automation: Incorporate smart grid solutions to effectively manage and distribute renewable energy.	1. Contact granular accounting specialists to acquire the capabilities for granular, near real-time tracking and estimation of energy consumption at the source, including smart-meter rollout and AI-based methods.	<ul style="list-style-type: none"> ▪ Powerledger ▪ Blok-Z ▪ SoftServe ▪ FlexiDAO ▪ Granular Energy
3.	Define who collects & analyses data to track energy consumption, generation, carbon footprint reduction, and financial benefits.	1. Refer to your in-house data team, consultant and/or energy supplier	<ul style="list-style-type: none"> ▪ Powerledger ▪ SoftServe ▪ FlexiDAO ▪ Granular Energy



6. CERTIFICATION: Gain recognition and validation for attaining higher levels of hourly CFE matching

1.	Ensure all practices and processes adhere to contractual CFE standards.	1. Verify your compliance within your organisation and your supplier(s).	<ul style="list-style-type: none"> ▪ FlexiDAO ▪ Granular Energy
2.	Report on hourly matched consumption and get certifiable EACs.	1. Verify your compliance via your energy consultants with reference to standardisation bodies.	<ul style="list-style-type: none"> ▪ AIB ▪ EnergyTag
3.	Acquire relevant certifications that validate the organisation's commitment and achievement of CFE.		
4.	Inform stakeholders of the certification and what it represents for the organisation and its commitment to sustainability.	1. Celebrate success with your stakeholders, including your community at Eurelectric. Contribute with your success to the case studies.	<ul style="list-style-type: none"> ▪ European CFE Hub Case Studies



7. REPORTING: presenting & acting on data and insights related to transitioning towards hourly CFE and its impact

1	Disseminate carbon reduction results to The Science Based Targets initiative (SBTi) and/or to the Carbon Disclosure Project (CDP) to enhance your company's reputation and credibility.	<ol style="list-style-type: none">1. Continue to monitor the alignment of your organisation's CFE levels with regulations (EU) and global reporting standards (GHG Protocol, RE100 technical criteria).2. Consider reporting additional details on your hourly matching percentage for your company or individual sites, as well as more granular carbon footprint data based on hourly matched procurement.	<ul style="list-style-type: none">▪ CDP▪ GHG Protocol Guidance▪ SBTi▪ RE100 Reporting and Technical Criteria
2	Provide your board of directors & shareholders the increase on the ROI of the transition to 24/7 CFE, the impact on corporate reputation, and how the transition aligns with the company's long-term strategic goals.	<ol style="list-style-type: none">1. Utilise digital solutions that give granular, dynamic, interactive tools to demonstrate every single hour of matching for related stakeholders.	<ul style="list-style-type: none">▪ Granular Energy
3	Market your positive environmental & social impact to your own staff, clients, partners and local community to build trust and rapport.	<ol style="list-style-type: none">1. Develop & disseminate marketing and communication materials to celebrate achievement and foster a culture of environmental responsibility.	
4	Showcase your achievement at a European-wide stage through Eurelectric's European 24/7 CFE Hub and related events.		<ul style="list-style-type: none">▪ European CFE Hub