

Clean Hydrogen: Role of International Climate Finance

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UK Clean Hydrogen Policy

- ❖ **Strategy:** UK Hydrogen Strategy published in 2021
- ❖ **Action Plan:** Hydrogen Sector Development Action Plan published in 2022
- ❖ **Ambition:** up to 10GW of low carbon Hydrogen production capacity by 2030
- ❖ **Trade:** UK engaging with investors & industry to facilitate flow of private capital into UK hydrogen economy & showcase UK hydrogen investment opportunities
- ❖ **Funding:** £20m competition in 2022 for Hydrogen Transport Hub - demonstrate hydrogen use & re-fuelling for transport & securing sustainable hydrogen demand
- ❖ **R&D:** £26m Industrial Hydrogen Accelerator Programme for projects generating evidence on end-to-end industrial fuel-switching to hydrogen



UK International Climate Finance

- ❖ **Commitment:** £11.6bn ODA between 2021/2022 and 2025/2026 (with at least £3bn on nature and tripling adaptation finance to £1.5bn in 2025)
- ❖ **4 main areas-of-focus:**
 - Clean energy
 - Nature for climate and people
 - Adaptation and resilience
 - Sustainable cities, infrastructure and transport
- ❖ **Clean energy:**
 - Increasing renewable power investments of British International Investment (BII)
 - Working through partnerships under the Breakthrough Agenda
 - Delivering the Ayrton Fund RD&D commitment
 - Strengthening governance, policy and regulatory frameworks for clean energy, fossil fuel subsidy reform and coal phase-out, and mobilising private finance
 - Supporting strategic systems planning (NDCs)
 - Supporting deployment of high-quality clean energy

UK Clean Hydrogen International Assistance Offer



- ❖ **Focus:** UK will support hydrogen collaboration & cooperation to accelerate innovation & deployment of technologies to increase supply & incentivise demand
- ❖ **Breakthrough Agenda:** launched at COP26 – countries committed to work together this decade to speed-up clean tech. UK co-leading Hydrogen Breakthrough (affordable renewable & low carbon hydrogen globally available by 2030)
- ❖ **Mission Innovation:** global initiative to accelerate public & private clean energy innovation. UK co-leading Clean Hydrogen Mission (Action Plan 2022-2024 published in 2022)



£1bn Ayrton Fund Commitment

Approach:

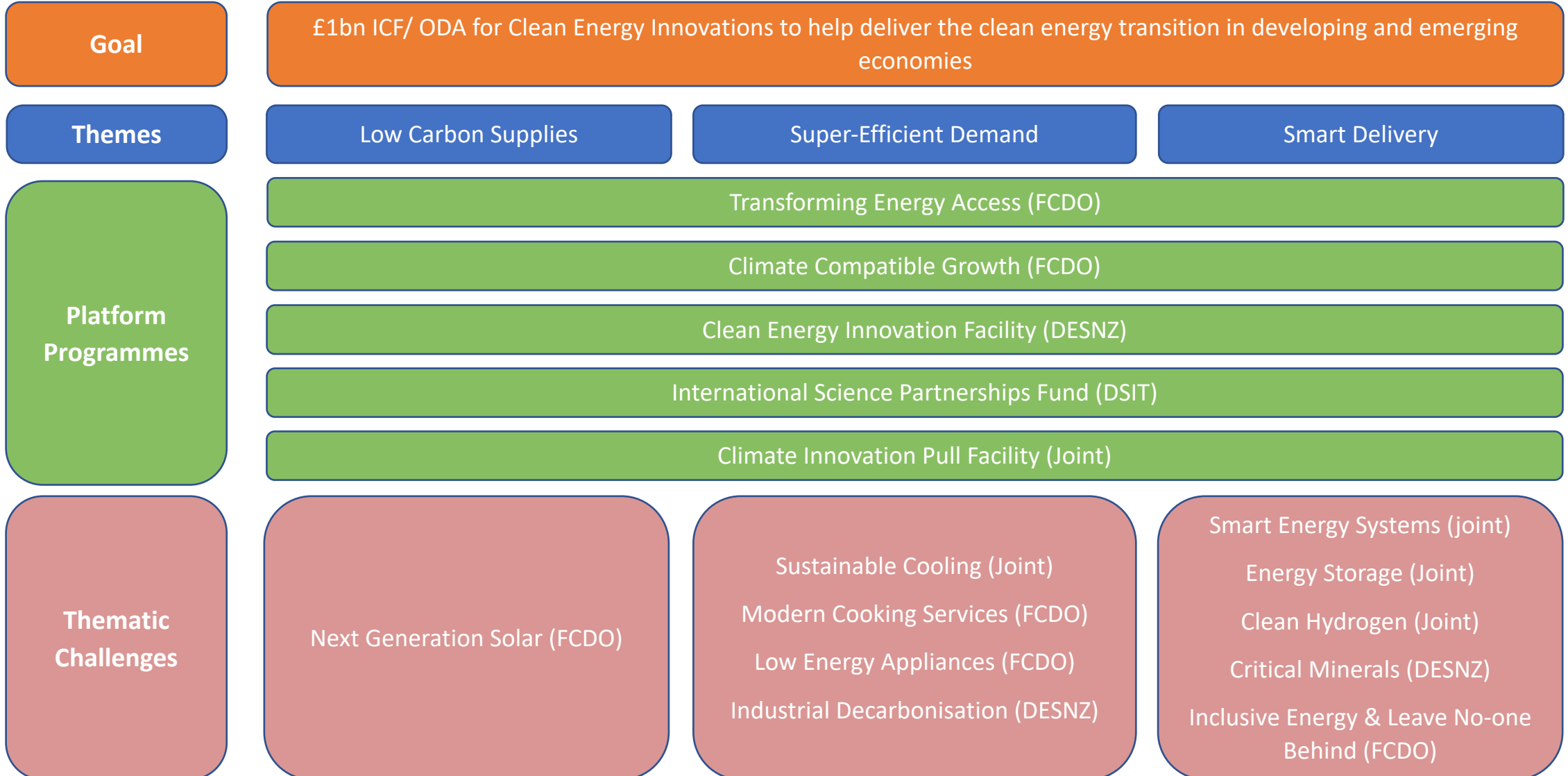
- Principle lever for UK ODA support for clean energy innovation: [£1bn Ayrton Fund](#)
- Announced in 2019 (part of UK's £11.6bn international climate finance commitment)
- Delivered 2021-2026 & aims to accelerate clean energy transitions in developing countries by making clean energy most affordable, accessible & attractive options

Focus:

- Off-track thematic areas for delivery of SDGs 7 & 13
- E.g. clean hydrogen, industrial decarbonisation, critical minerals, sustainable cooling, smart energy, energy storage and clean transport



Ayrton Fund Platforms



UK Clean Hydrogen International Assistance Offer

International Assistance:

❖ **Clean Energy Innovation Facility (CEIF) 1.0 (£50m):**

- Innovative clean hydrogen projects supported through £17.7m Industrial Decarbonisation Innovation Fund (through World Bank)

❖ **Accelerate-to-Demonstrate (A2D) Facility (£65.5m):**

- Innovative clean hydrogen projects supported through ~£20m Clean Hydrogen pillar (through UNIDO)

❖ **Climate Compatible Growth (CCG):**

- Academic research on green hydrogen & economic development opportunities/risks (e.g. clean hydrogen optimisation models, clean hydrogen into energy source models)

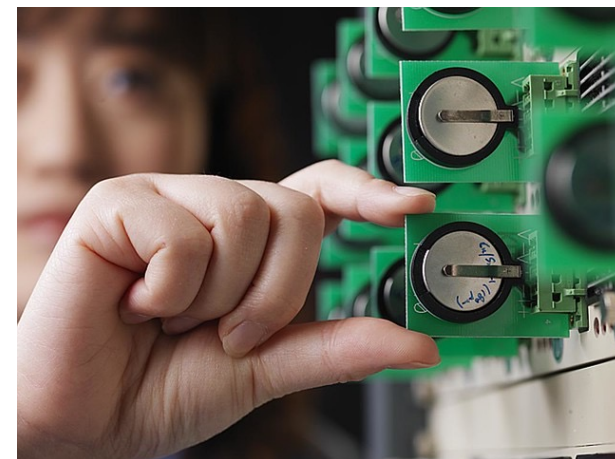
❖ **Climate Investment Funds (CIFs) Industry Transition Programme:**

- Supporting scale-up of technological solutions in industry including clean hydrogen



Programme Case Study: £50m Clean Energy Innovation Facility (CEIF)

- ❖ Aim: to accelerate the commercialisation of innovative clean energy technologies in developing countries through advancing Technology Readiness Levels (TRLs 3-7)
- ❖ Timeframe: 2019-2024
- ❖ Four thematic Funds:
 - CEIF Industrial Decarbonisation Innovation Fund (£17.7m, World Bank)
 - CEIF AI & Digitalisation Innovation Fund (£10m, ADB)
 - CEIF Sustainable Cooling Innovation Fund (£15m, IFC)
 - CEIF Energy Storage Innovation Fund (£7.3m, Innovate UK)
- ❖ Impacts:
 - ❖ 87 projects have been supported to date
 - ❖ £44m of private finance has been leveraged
 - ❖ 211 knowledge-sharing and training-events have been held



Project Case Study: Market Assessments of Investment Opportunities in Clean Hydrogen

❖ Goals:

- Support development of clean hydrogen industry in developing countries
- Where early private sector investment leads exist or are being generated

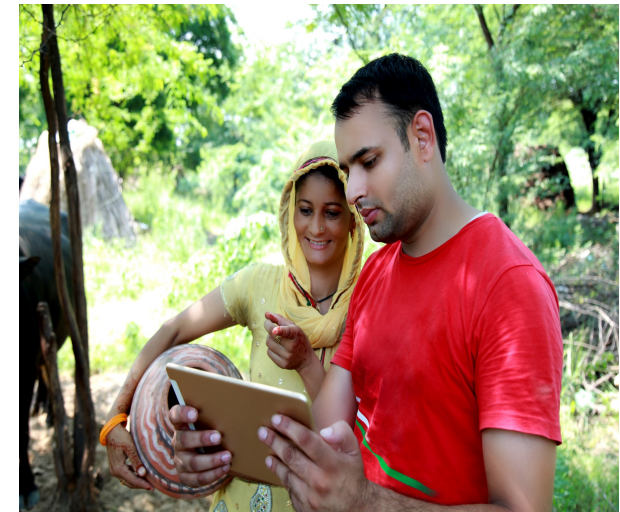
❖ Overview:

- *Timeframe:* 2021-2023 (due to complete in August 2023)
- *Cost:* \$2m
- *Outputs:* country-level technical & economic assessments for green hydrogen
- *Countries:* feasibility studies for 8 countries (including India & Pakistan)
- *Next steps:* assessments collated in a report on opportunities in green hydrogen (including on increasing women's participation in sector)



New Programme: £65.5m Accelerate-to-Demonstrate (A2D) Facility

- ❖ Aim: to accelerate the commercialisation of innovative clean energy technologies in developing countries, particularly focusing on clean hydrogen, critical minerals and cross-cutting areas for energy transitions
- ❖ Timeframe: 2023-2029
- ❖ Three thematic pillars delivered through UNIDO:
 - A2D Clean Hydrogen Pillar
 - A2D Critical Minerals Pillar
 - A2D Cross-Cutting Pillar
- ❖ Activities:
 - ❖ [Announced by UK Prime Minister at COP27 & launched in May 2023](#)
 - ❖ In set-up phase & due to be operational in early 2024
 - ❖ Further information to be announced towards the end of 2023



Thank you