

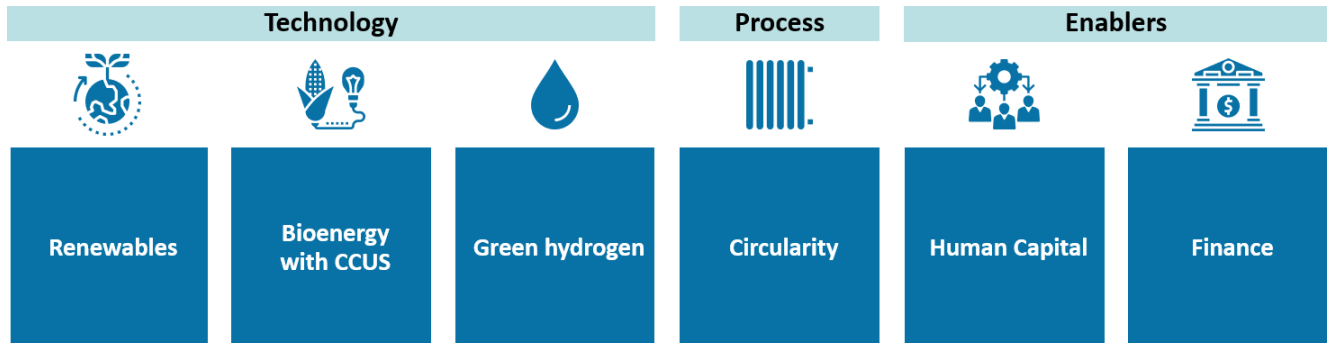
Alliance for Industry Decarbonization

Joint Action Plans 2024

Updated: 29 July 2024



Focus areas:



Outreach events 2024:



Actions and Initiatives 2024:

| TECHNOLOGY FOCUS AREA | | | |
|--|-----------------------------|---|--|
| Renewables – Action Plan | | | |
| Name of the action | Involved members & partners | Description | Deliverable |
| RE Business Network & Critical materials | Members | Sourcing of critical materials for renewable sector Focus on actions and solutions able to mitigate environmental and social risks/impacts of critical raw materials and minerals considered strategic and representing a bottleneck to renewables deployment, in terms of reaching the renewables ambition by 2030. | <p>1. Outreach and Dialog: Involvement of more mining value chain actors to bridge the gap between mining and renewables</p> <p>2. Improve transparency: Increase transparency in raw material usage for main equipment by developing/ adopting industry recommendations on traceability protocol/standard that defines the methodology to collect evidence over the origin and source.</p> <p>3. Consult with Key Initiatives: AFID WG Renewable to consult with Solar Stewardship Initiative and the Global Alliance for Sustainable Energy on the topic of transparency in raw material usage for main equipment to understand feasible modalities to benefit from - traceability and transparency standards being developed by 2024 through reliable experts.</p> <p>4. Capacity building and a Life Cycle Assessment Certification Mapping and Evaluation Report.</p> <ul style="list-style-type: none"> • Life Cycle Assessment certifications (LCA): to reduce CO2 emissions of main equipment in the entire life cycle. The LCA assessment pertains to various environmental dimensions starting from raw materials extraction till its dismantling of equipment. Therefore, LCA certifications can also support the identification of mitigation actions for raw materials with environmental criticalities potentially affecting renewable ambition. • Life Cycle Assessment certifications (such as Environmental Product Declaration- EPD/PEF/EPEAT, etc.) can measure and enhance carbon footprint of main equipment. Advocacy activity aimed at ensuring their adoption and comparability “product category rules” used by various certifications may be conducted. The following criteria will be considered: <ul style="list-style-type: none"> 1) Mapping of protocols/certifications adopted/ required by Renewable Working Group’s members. |

| | | | <p>2) Analyze, compare and define common rules for LCA methodology.</p> <p>5. Experience sharing. Group members to share knowledge and best practices from participation in other associations/initiatives working on topics promoting renewables.</p> |
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| RE knowledge sharing platform | | Decentralized renewable generation | 6. Presentations. Sharing of relevant experiences and best practices from members regarding for example: Examples of successful decentralized renewable projects / storage initiatives as an enabler for adoption of renewable generation. |
| Enterprise Twinning platform with integrated ESG | IRENA Members | IT set up and implementation of the Platform, release of a first version by the end of the year. | <p>7. Collect feedback via survey and develop a Beta version Enterprise Twinning platform to:</p> <p>Enhance Collaboration: Support RE enterprises across AFID/IRENA member countries to exchange innovations and best practices for climate action and energy transition.</p> <p>Build Business Partnerships: Establish mutually beneficial collaborations between enterprises in developing countries and other regions to support energy transition.</p> <p>Integrate Sustainability: Help companies embed sustainability into their strategies through ESG knowledge sharing to advance sustainable energy.</p> |
| Bioenergy with Carbon Capture Utilization and Storage (BECCUS) – Action Plan | | | |
| <i>Name of the action</i> | <i>Involved members & partners</i> | <i>Description</i> | <i>Deliverable</i> |
| Knowledge sharing and Review of existing policies and regulation | Members | <p>Regional study could be helpful in attracting new interest from emitters and other potential new members.</p> <p>To develop one study on the opportunities for BECCUS projects at the national/regional level in different geographies.</p> | <p>8. Develop a Report focusing on:</p> <ul style="list-style-type: none"> An analysis of the opportunities for BECCUS projects at national and regional levels across different geographies. The necessary government support for the successful implementation of BECCUS projects, with a specific focus on the roles of Micro, Small, and Medium Enterprises (MSMEs) and startups. |
| | UNIDO /Members | Including a focus on the form of government support needed to develop BECCUS projects. With a focus on how policies and regulations can enable finance and infrastructure development for SMEs in BECCUS. | |
| | APChemi | | Presentation to include an introduction of biochar and organic |

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| | | fertilizers from biomass for CCUS and Biochar certification. | |
| Technology solutions for CCUS | Members | Active experience sharing on utilization of CO2. | 10. Presentation of Technology Options Compendium. Presentations by various Technology Suppliers. Compile a compendium of technology options for carbon capture and usage specific to sectors such as Iron and Steel and Cement, Chemical. |
| | APChem | Production of biochar and organic fertilizers from biomass for CCUS. | |
| | TÜV SÜD/BV | Presentation of ISO Certification methodologies for CCUS/BECCUS. | 11. Presentation of ISO Standards. |
| Investment support for CCUS project | IFC/ERM/ Other FIs and Lenders | Gain knowledge on how CCUS projects could be financed. Analyze and/or share data on levelized cost of carbon capture, and the wide range of technologies existing. | 12. Presentation by International Finance Corporation (IFC), IFIs, Lenders. |
| | APChem | Possible investment support to projects in biomass pyrolysis for CCUS in 2 stages: Stage 1) Feasibility Study Stage 2) Project Finance. | |

Green Hydrogen – Action Plan

| <i>Name of the action</i> | <i>Involved members & partners</i> | <i>Description</i> | <i>Deliverable</i> |
|--|--|---|--|
| Information sharing about current work and aspiration in GH2 | MI (lead) Presentations by: Eni Topsoe | Green hydrogen projects include but are not limited to large scale industrial projects, mobile modular hydrogen fuel cells, hydrogen to power and ammonia to power, hydrogen mobility, demand and supply side, equipment to multiple markets on a global scale. | 13. AFID members to present green hydrogen projects, as contribution to “Open Book on Projects” facilitated by Mission Innovation (MI). |
| Techno-Economic challenges and solutions for large scale H2 hub | UNIDO(lead) Input contributions by: Snam. Net Zero Think En | Discuss UNIDO's model on green/clean hydrogen industrial clusters. Analyse regulatory aspects and standards. Market analysis with specific geographic clusters in developing countries with focus on efficient access to the market for green hydrogen. | 14. Short paper focusing on: • A Market Analysis on geographic clusters and critical infrastructure, including a case study on fast-tracking green hydrogen projects. |
| Safety standards for generation, transport and storage of GH2 | BV (lead) Input contributions by: Eni | Analyse green H2 cross-border market with focus on critical infrastructure. Description how green hydrogen projects were fast tracked (government regulations) in specific country(ies). | |
| Regulatory aspects for | | | |

| fast-tracking GH2 projects | | | |
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| PROCESS FOCUS AREA | | | |
| Circularity – Action Plan | | | |
| Name of the action | Involved members & partners | Description | Deliverable |
| Accelerated circularity in industries n. | Members | Develop Blueprints for decarbonization for the industry (i.e., aluminum and cement) with focus on circularity. Looking into global experiences and solutions. | <p>15. Circularity blueprints for decarbonization for industries</p> <p>16. Identification of pilots, work as matchmaker and enhance opportunities for new knowledge creation.</p> |
| ENABLERS FOCUS AREAS | | | |
| Human Capital - Action Plan | | | |
| Name of the action | Involved members & partners | Description | Deliverable |
| Digital Learning platform MyChange for AFID" | Members and partners | "MyChange" is a Digital Learning Environment implemented for AFID to support our people to face the greatest challenges of our time and actively participate in the cultural change that our companies are undergoing towards the energy transition, the sustainable development, and the digital transformation. | 17. Expand Platform Usage and Content of "MyChange for AFID. Ramp-up of the platform in terms of integration of additional contents and increasing the number of users from Alliance AFID members. |
| Green energy reskilling | Leads of other WG members Members | Methodology for Reskilling workforce from traditional energy Job profiles towards those proper of the green energy sector. | <p>18. Present Reskilling Program Methodology from oil and gas upstream to offshore wind.</p> <p>Evaluate the industry needs for additional reskilling methodology(ies)</p> |
| Finance – Action Plan | | | |
| Name of the action | Involved members & partners | Description | Deliverable |
| Define what is green project & Sustainable guarantees for climate projects | GreenEart hX, Ecopetrol | <ol style="list-style-type: none"> 1. Identify key barriers and innovative financing models. 2. Showcase successful case studies and best practices. | 19. Report "Overcoming challenges and fostering finance solutions for industry decarbonization" |

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| | APChemi, FLSmith, IFC, EDB | <p>3. Provide recommendations for policymakers, financial institutions, and industry.</p> <p>4. Additional Content:</p> <ul style="list-style-type: none"> Develop a two-step financing approach for greenfield decarbonization projects: a. FEED (Front-End Engineering Design) and Feasibility Study Funding <p>1. Address SME financing challenges in developing countries.</p> | |
| Green Certification | GreenEart hX Eco-Petrol | <p>Create a platform for members to exchange experiences and insights.</p> <p>Highlight innovative financing structures and models.</p> <p>Foster cross-border collaboration and learning.</p> <p>Sustainable guarantees as a strong de-risking mechanism. Which feasibility studies must be done to secure project financing. Consensus building between banks and industry. Delivering a high standard of reporting on climate impact.</p> <p>1. Parameters for Green Certificates to cover critical topics (among others):</p> <ul style="list-style-type: none"> Carbon emissions reduction Energy efficiency improvement Environmental impact across the life cycle <p>2. How the parameters help assess project eligibility and value, guiding investment decisions and encouraging adoption of sustainable technologies.</p> | <p>20. Organize a Decarbonization Financing Webinar. Share experiences, constraints, and innovative finance models for decarbonization projects.</p> <p>Including sharing experiences on sustainable guarantees</p> <p>21. Dialogue with IFIs, DFIs, Banks and relevant stakeholders on removing barriers to investments in decarbonization projects.</p> |

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