
Fifth Assembly of International Solar Alliance
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Agenda Item 23

Update on STAR-C Initiative

Summary

This working document presents the progress on the Solar Technology Application Resource Centres (STAR-C) initiative. In 2022, the STAR-C initiative has generated good interest among the ISA member countries. ISA member countries have submitted their official expression of interest highlighting their priorities to be addressed through the STAR Centres. Memorandum of Understanding have also been signed with the member countries, the initiative is on track to operationalise few centres in 2022. The Fifth Assembly of ISA is invited to review the progress and provide guidance for enhancing the impact of the initiative.

Update on STAR-C Initiative

Background:

Recognising the urgent need to support the ISA Member Countries with high potential for solar technology deployment, the ISA Assembly agreed to establish an international network of STAR C (Solar technology Application Resource Centre). The aim is to build the necessary human capacity and skills within member countries to undertake energy transition on their own while also boosting economic growth and job creation.

STAR Centres act as the technology, knowledge, and expertise hub on solar energy and a go-to place for the member countries at regional and country level. ISA's STAR Centre programme aims to meet ISA Member Countries' capacity-building needs by building capable solar workforces, sensitising policy makers and financial institutions, incubating enterprises, standardising products, and services, and creating knowledge repository on information related to solar energy.

Multi-functional centre of excellence:

While the member countries of ISA are devising new policies/regulations to build enabling environment for accelerated growth of solar energy, there is an urgent need to develop local technical knowledge, awareness among decision makers, incentivising innovation, standardised products/services and capable enterprises.

The STAR Centres are expected to undertake one or more functions related to trainings, testing, innovation and knowledge management. Based on the prominence of the function it plays, a STAR Centre can be known as STAR Training Centre, STAR Testing Centre and likewise. Currently, there are four primary functions envisaged for the centres and these are **a) Capacity Building b) Testing c) Innovation d) Knowledge management.**

- The STAR Centre develops custom **training resources** of standard quality and deliver competency-based training schemes on technical and financial aspects of solar products, applications, and services. The centre delivers training to government officials, technicians, engineers, and industry associations.
- The STAR Centre undertakes **testing** of solar components, technologies based on the national and international standards. In some countries, the STAR Centre can develop national standards based on the international experiences.

- The centre collects and analyse existing **knowledge and information** related to solar energy for dissemination to larger audience. It will act as a knowledge management centre providing solar energy data, guidelines, analytical tools, relevant policies and technical assistance to solar developers, decision makers, and local institutions.
- The centre will also take lead in identifying and **incubating start-ups** or enterprises for integrating solar energy with income generating activities. This would create significant number of green jobs and enable development of innovative ideas to address country specific energy related challenges. Customising solar energy based on local needs, the centre will create innovative products and services serving local context and leading breakthroughs in scaling up off grid and grid connected solar installations.

Progress Update:

- ISA has recently signed a Memorandum of Understanding with the **Government of Ethiopia and Cuba** for setting up STAR centres in Addis Ababa University and Havana University, respectively. ISA has commissioned the country assessment to identify the need of the countries with respect to trainings, testing, innovation and knowledge generation; hardware/software required for setting up the centre and a detail business plan for these centres to generate revenue for sustenance. These two centres will be operationalised by the end of year 2022.
- ISA has also actively engaged with **Uganda, Somalia, and Kiribati** to set up STAR centres, formal expressions of interest have been submitted by the nodal ministries of these countries. The country assessment of these 3 countries will be commissioned in October 2022. These centres will be operationalised in the year 2023.
- Similarly, ISA is engaging with **Cambodia, Côte d'Ivoire, Peru, Guyana, and other Member Countries** to setup the STAR Centres. Initial discussion with the countries have shown immense potential and interest, ISA intends to formalize the engagement for setting up centres in these countries in the coming months.
- ISA is pursuing several initiatives and strengthening existing partnerships to set up STAR Centres across member countries. Prominent among these endeavours is the project with the **Ministry of Europe and Foreign Affairs of France** to build the capacity of ISA and Member Countries to structure an International Network of Solar Technology and Application Resource Centres jointly implemented by UNIDO and ISA. The project focuses on strengthening quality infrastructure and standards for PV and solar thermal products and services. It also aims to improve local capacities to provide

certified solar curricula and training and strengthen solar networks and knowledge management.

- The **European Union** has also offered its support to ISA and its Member Countries for deepening cooperation between the European Union, European solar energy-related businesses, the relevant European academic networks, financial institutions, and ISA. The project aims to strengthen ISA's role as a solar energy platform. One of the deliverables of the overall project is 'Strengthening the academic network of the ISA', which will help in enhancing the impact of the STAR-C initiative.
- ISA has initiated discussions with some renowned **global training institutes** to create its library of training resources. This would help institutionalise capacity building in local institutions for regular training of local engineers, technicians, and decision-makers.
- ISA is also working towards engaging the **private sector foundations** to leverage technical and financial support in setting up the centres. The interest from private sector foundations is growing, and ISA is working on a few partnerships which are directly supportive of and consistent with programme priorities.

Way Forward:

ISA aims to have 10 STAR Centres operational by 2024, 30 STAR centres by 2026, and 50 STAR Centres by 2030 across the globe acting as a shared facility at regional and national level providing capacity for deployment of solar energy applications and research, business modelling, incubation, training, standardization and testing. It will engage faculty members from different disciplines/institutes of excellence and provide/use shared facilities, labs, testing centres etc. In the coming years, the role of these centres will become more important than ever.

Technical and financial support to STAR centres as well as enhanced international cooperation is key to the success of the STAR Centre initiative. More and more countries are getting associated with ISA and therefore the potential to form a regional and global network of the STAR centres is growing. ISA is actively engaging with potential donors and seeks financial support to enhance the impact of this flagship initiative globally.
