Energy Sector
Technology Innovation Challenge (TIC)

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ADB's High-Level Technology Fund

- **Established by Government of Japan**
- **Supports** technology transfer **to solve development challenges**
- **Develops high-level technology portfolio**, supporting "proof of concepts" for new technologies with development impact
- Develops **partnerships with HLT providers**
- Provides funding for **Technology Innovation Challenge** (1st round TIC: Energy sector)

Energy sector TIC

Main objectives

1. CO2 reduction (achieve NDC target)
2. Increase energy access (SDG7: affordable and clean energy)

Key areas of development challenges, need innovative solutions.

Efficient

clean heating/cooling solution

Renewable

energy-based micro-grids

Artificial Intelligence

for energy demand management

Pilot testing of innovative technology in DMC by HLT provider, ADB co-finance and support dissemination.

What funding is available?

3 x $0.5m HLT Innovation Partnership Grants for proof-of-concept or pilot testing of solutions to address a development challenge. HLT providers selected via ADB competitive selection.

In return, HLT providers:

- co-invest in testing and independent verification of results
- commit to commercial model for future scale up and implementation
- maintain reference site and/or data for future country and ADB projects

Future ADB funding opportunities include sovereign loans to member countries for HLT implementation and direct loans/equity to HLT providers (or, in limited circumstances, Venture Capital)

Energy TIC funding outcomes

Member Country

- Learn about new technology applications
- Technology tested in country: reduces implementation risk

HLT Provider

- Get familiar with local context
- Adapt to local requirements
- Partner with ADB to reduce risk of market entry

ADB

- Identify new solutions
- Co-create solutions, HLT commercial models and Intellectual Property

Expected outputs from TIC grants

DMC Capacity increased to assess, specify and implement HLT solutions to gain benefits

Recommendations for **next steps for scale-up**

Verified results of HLT solution related to development challenge

Reference site and results for future ADB borrowers

Publication of lessons learnt by all parties (via ADB)

Proposed commercial model for future ADB-funded implementation, operation, maintenance and disposal

Energy TIC process

1

3 x Development Challenges
Published on ADB website

2

Expression of Interest
HLT providers submit application to express interest via online system
ADB evaluates submissions
Over 100 applications, 12 technologies shortlisted.

3

Call for Full Proposals:
HLT Providers selected at EOI stage invited to submit detailed proposals for HLT
ADB evaluates proposals, selects, negotiates and awards grants
3 final winners

4

Implement Grant Project and demonstrate Technology Solution
Verify HLT impact in line with expected results (by September 2022)
Publish results and lessons learned

Future opportunities: Successful grant implementation may lead to scale up with ADB loan

Selection Criteria, Scoring

Category	Evaluation
Impact	Effectiveness of technology solution in addressing a defined sector development challenge.
Novelty / Innovativeness	Proposes a new technology for a certain DMC or technology context.
Scalability	Scalability potential in the country and region.
Value for Money	Likelihood of creating relevant and meaningful impact in relation to the level of the grant (provided by ADB).
Local Partnership	Includes local partnerships in the DMC of choice for implementation. Stronger proposals will also demonstrate government buy-in or support in the locations they would like to conduct the pilot(s).
Risk Mitigation	Project risks such as environmental and social risks identified and mitigation measures proposed.

3 selected technologies

Technology provider	Project location	Technology
HeliosAltas (USA)	**Philippines**	**Micro Hydro**
Asano Taiseikiso (Japan)	**Vietnam**	**Clean cooling and heating system by utilization of unused industrial wastewater**
CSIRO (Australia)	**Indonesia**	**High efficiency solar air-conditioning for hot & humid environments**