



Clean Energy Services Initiative (CESI)

A China Rural Energy Enterprises Development (CREED) Initiative

The need for Better Energy Services

With continuing deforestation and increasing industrial waste, Western China is gradually becoming one of the environmentally troubled regions in China. In spite of a rapidly increasing energy supply over the past years, more than 30 million people and 2000 rural villages in Western China still have no access to modern energy services.

Fortunately there are ways to improve and diversify the delivery of energy services while also reducing demand for fuelwood and heavily polluting coal. These approaches include biogas digesters, wind power generation, solar PV hybrid generation system, solar water heaters and fuel-efficient stoves and boilers.

Clean Energy Services Initiative (CESI)

CESI is a part of UNEP's China Rural Energy Enterprises Development (CREED) program (www.c-reed.org) that aims to create a clean energy path in Western China. Supported by the United Nations Foundation (UNF), CREED offers enterprise development services and investment, along with support for consumer credit and income-generation micro-finance. The E+Co China office is responsible for the clean energy enterprise development services and investment through the China Energy Services Initiative (CESI).

Support for clean energy entrepreneurs: The REED approach

Realizing the crucial role of energy entrepreneurs in delivering sustainable energy technologies and the lack of practical and well grounded energy business in Western China, E+Co began working with local partners under the UNEP's China Rural Energy Enterprises Development (CREED) program. The focus is to promote the use of clean energy in Western China through an enterprises-centered commercialization model. This Rural Energy Enterprises Development (REED) approach has been successfully demonstrated in other UN Foundation funded UNEP- E+CO partnership projects in Africa (www.areed.org) and Brazil (www.b-reed.org).

The REED model targets innovative clean energy enterprises that have difficulty gaining access to traditional financial institutions. To increase the likelihood that clean energy ventures will succeed, REED offers a package of services designed to nurture entrepreneurs, their ideas, and the new business they create. The REED program operates financially in a manner similar to a revolving fund, which more broadly targets defined development outputs than simply a financial return.

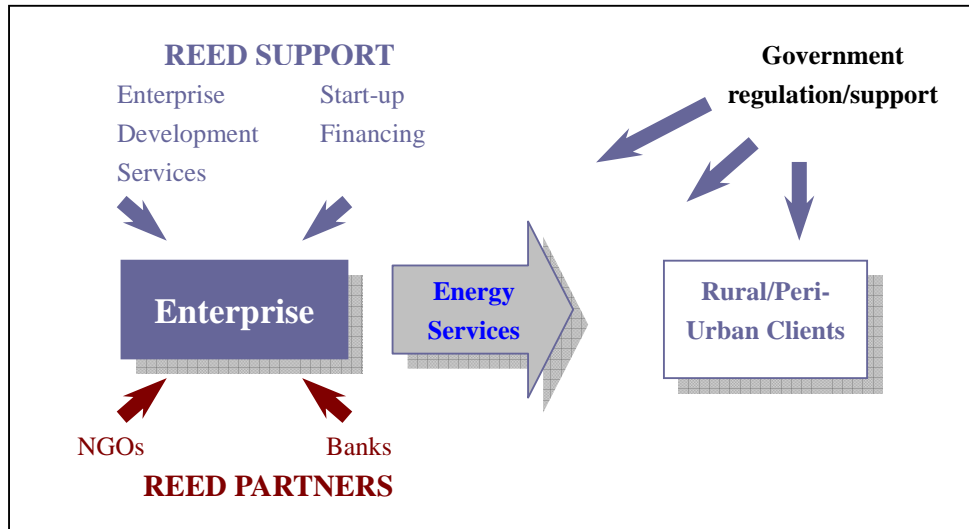
CESI as an Extension of the REED model

Following the REED approach, Clean Energy Services Initiative (CESI) of CREED Program will provide support to enterprises through a combination of enterprise development services and 'seed capital' to deliver improved modern energy services to under-served areas of Western China.

The CESI activities will be managed by E+Co's newly established office in Kunming, Yunnan province. The E+Co China office will offer a package of services designed to support entrepreneurs and the new businesses they are creating. These services are delivered either

directly to the energy entrepreneurs by E+Co, through a local partner, and even through a local environmental protection bureau or other authority responsible for clean production and promotion of renewable energy in the industrial sectors.

CESI aims to assist local government agencies and other development focused institutions to consider, develop, and implement policies that remove market barriers and address market failures; including the removal of import duties and measures to encourage finance in sustainable energy sectors. CESI works with local financial institutions and foundations/donors to leverage CREED and other E+Co resources to encourage the creation of investment pools devoted to larger scale clean energy projects and later stage investing in the growth of small and medium sized enterprises.



What CESI Will Offer?

The key element of CESI is a provision of a small initial financial investment called ‘seed capital’ (also called start-up capital or seed finance) to transform a good idea and a capable entrepreneur into a specific business that delivers improved energy services. CESI is targeted mainly at developing small to mid-sized companies, but will also consider enterprises promoting larger scale clean energy projects.

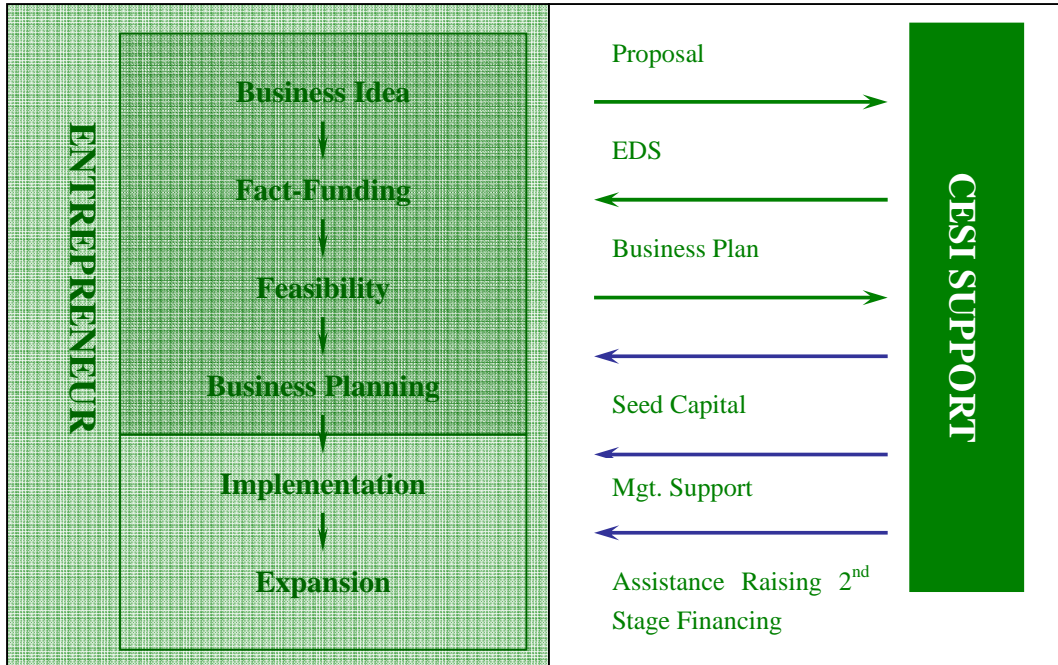
CESI is a developmentally focused finance initiative, but it should not be considered “easy money”. Helping an enterprise build a credible financial track record is a necessary pre-requisite to be considered creditworthy by conventional financial institutions. As CESI assistance usually does not provide all of the finance an enterprise may require to reach commercial success, the terms of the financing package are usually structured with a “second stage”, more commercial investor in mind.

The amount of seed capital can start at the equivalent of US \$ 15,000, particularly if a new enterprise needs the funds to simply pilot a new business activity, and reach US\$ 150,000 to take a new enterprise from a tested approach to a proven commercial business.

Identifying entrepreneurs with the potential to turn ideas into successful enterprises is a challenging process. CESI can also provide businesses with the appropriate level of managerial assistance needed to grow, including:

- Input on understanding commercial markets and marketing;

- Guidance on gathering information and preparing feasibility analysis, proposals and business plans;
- Input for the development of commercial contracts and revenue collection mechanisms;
- Input for the development of commercial partnerships; and
- Assistance with negotiations with credit providers, lenders and investors.



Promoting the use of clean energy: Examples of CESI investment targets

In the first half-year of operation, two manufacturing based energy enterprises that sell products in Western China have been identified. Once these investments are completed, these manufacturers will have additional working capital to expand their production and will be able to increase sales to remote and non-electrified areas for rural lighting and even for household cooking.



A Small Hydro Equipment Manufacturing Company providing energy service and install small hydro-system in rural Yunnan, Sichuan and Hunan: This company is now seeking \$ 75,000 from E+Co China for its business expansion. Discussions are underway on the clarification of structuring this investment under Chinese legal and regulatory conditions.

Industrial Biogas Project Development: E+Co China office is also working closely with Environmental Protection Bureau in Yunnan and Guizhou to identify and develop the industrial

biogas project in these two provinces, these projects would focus on industries with organic waste stream for the conversion of the liquid waste into the biogas. This new fuel can be a major energy resource for both thermal applications and electricity generation. To develop the industrial based biogas projects, CESI will target three types of enterprises, small and medium food processors, livestock raising factories, and medium sized hotel and restaurant. The

successful implementation of “inside the fence” biogas projects will assist those sectors to achieve the goal of energy sustainability and environmental performance improvements.



Contact Information

For more information about CESI of CREED project, please visit our websites www.c-reed.org and www.energyhouse.com or contact below.

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