Sunny Path from *Poverty*

MICHAEL ECKHART describes an innovative way of financing clean energy development

Mark Edwards /Topfoto

For many years the clean energy community has searched for innovative ways of financing clean energy projects. Many new approaches have been tried, but we are now realising that there are no magic solutions. We usually find that the task is less about bringing the financial community into the realm of clean energy than about bringing the clean energy community into the realm of mainstream finance, with a few new elements.

Capital intensive

Several key characteristics about clean energy solutions affect their financing. First, clean energy projects are typically more capital intensive than conventional alternatives, with higher initial costs and lower operating ones, making them more sensitive to the term of debt and interest rates. Equally important, they are more exposed to concerns about political risk, currency devaluation and other international issues, because it takes longer to recover capital. Here, innovative work with the mainstream financial community includes the proposed Global Development Bonds (GDBs) that might some day link sustainable development projects in developing countries with finance from institutional investors in developed ones like the United States. This is a long bridge to build, but progress is being made.

Second, clean energy development creates environmental benefits that are difficult to translate into returns to the project's investors and lenders. Society is just beginning to create mechanisms by which those public benefits can be turned into cash – and thus included in financing arrangements. Carbon Credits based on implementation of the Kyoto Protocol, and Renewable Energy Credits created by regulatory mandates and voluntary markets are both examples of these. In certain situations, their value has actually exceeded that of the electricity produced. The challenge is how to establish markets for these instruments so that the financial community can have confidence in their longer-term values.

Third, clean energy projects are often smaller scale than conventional ones, with attendant high transaction costs per unit of output. SolarBank is an effort to address the issue of scaling the financing programme to a large number of very small transactions.

Solar photovoltaics (PV), which convert sunlight into electricity with no pollution, are already being used to provide the first electricity to off-grid homes, lifting people from poverty by providing light, access to communications, and economic opportunities. The difficulty is that their initial cost is high, requiring financing in about 95 per cent of cases. However, bankers do not lend money for tiny power plants, and utilities don't lend at all. Yet the scale of the market is huge: at about $500 per installation, all the 400 million un-electrified homes in the world can be powered by PV for $200 billion. This is an enormous challenge, especially considering the transaction costs of so many small financings. There must be a way of making funding this new opportunity more efficient.

Government incentives

SolarBank is a proposed global wholesale fund that would make loans to existing retail lenders that service rural people – banks, rural banks, microfinance organisations, cooperatives, societies, and other forms of lenders. It would have several characteristics:

It would be the "specialty" fund that lends perhaps $2 billion over its life, but in the process becomes the expert that the mainstream lenders emulate, thus leveraging its impact to mobilize the entire $200 billion needed.

It would offer an array of technical support and guidance programmes to help ensure that participating lenders are successful – including education, training, quality assurance, vendor qualification, technical support, insurance programmes, and peer-to-peer learning through participation in a SolarBank global network of lenders.

It would provide an efficient mechanism for making government incentives and subsidies from OECD donor countries flow to millions of end users.

SolarBank would be a not-for-profit, socially-responsible specialty fund, aiming to achieve a societal goal in a financially prudent way. It would require highly efficient, low-overhead operations, along with outstanding corporate leadership, financial skills, and technical excellence.

Its motto is simple: "the path from poverty begins with the first kilowatt-hour." Solar energy can provide the first kilowatt-hour of electricity to all who now lack it, and SolarBank can be a key part of a global strategy to achieve this ■

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