

Financing Energy for Development

An innovative
approach to funding
sustainable energy in
developing countries

A discussion paper for
Christian Aid
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Note: This paper has been produced
for discussion purposes and
does not represent Christian
Aid policy or thinking on this issue

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Executive Summary

This report proposes the creation of Development Energy Capital Trusts (DECT) to raise finance for the development of sustainable energy projects in developing countries. They would have the following characteristics:

- A DECT would be similar in structure to a Venture Capital Trust (VCT), a successful structure for raising funds for early stage business projects in the UK;
- Shareholders in the DECT would enjoy tax reliefs similar to those enjoyed by VCT shareholders;
- The DECT would use its funds to:
 - a. Encourage promoters of sustainable energy projects in developing countries to look for funding;
 - b. Assess those projects for their suitability for funding;
 - c. Seek to raise funding from a variety of sources, including its own share capital and bond issues as well as funding from donor countries and International Financial Institutions (IFIs) for those projects;
 - d. Seek to issue bonds to replace IFI and donor country funding for projects once their construction has been completed, with those bonds to be financed from the available cash flow inherent within the projects;
 - e. Ensure good governance of the projects whilst they are repaying the sum due to bondholders;
 - f. Pass the projects to the ownership of host countries once the bond was repaid;
 - g. Earn fees from the successful management of each stage of the project.
- DECTs would issue bonds for groups of projects (unless any project was of exceptional size) and would do so in order to minimise risk for the lender. Individuals who subscribed for DECT bonds would enjoy income tax exemption on income earned from them on the first £200,000 of nominal value of bonds they held.

The benefits of a DECT would be:

- | | |
|----------------------|---|
| For DECT members | <ol style="list-style-type: none"> 1. They get tax relief on making their investment; 2. They get tax relief on all income and capital gains realised; 3. They benefit developing countries whilst undertaking a tax efficient investment. |
| For the DECT sponsor | <ol style="list-style-type: none"> 1. The chance to attract private capital to sustainable energy and development causes; 2. The creation of "corporately responsible" businesses; |

3. Applying professional skills to areas the market has not conventionally reached;
4. A new financial product to sell of which there is no current equivalent.

For the creator of projects (whether individuals, organisations or governments in host countries)

1. A new source of funding where they might be a key player in management from the outset;
2. A source of funding where ownership reverts to the host country after a defined period;
3. A commitment to transparent management in which they can participate throughout the project life;
4. The energy, social and economic benefits that the project should supply are delivered.

For donor countries, IFIs and agencies (development grant financiers)

1. A commitment to public / private partnership in which sound management practice can be combined to host country involvement within a framework where the exposure to financial risk on the part of the development grant financier is limited because of the commitment, made at the outset, to replace their funding with commercial bonds once the delivery stage of the project is reached;
2. The release of new funds for development at minimal tax cost, so assisting them to meet their Millennium Development Goal commitments by gearing their commitment through market mechanisms.

The bond financier

1. A new and diversified market in which to invest;
2. Tax incentives (see below);
3. An opportunity to seek specific security for bonds in developing countries in a known and regulated management environment with reduced consequential risk for the lender.

The DECT proposal is novel, but its component elements are not:

1. The VCT model exists;
2. The concept of public and private money mixing in development is commonplace;
3. The refinancing of projects with bonds at the close of the construction stage is now normal in PFI projects;
4. The promotion of good governance in the delivery of services is the accepted norm;

5. Tax relief on bonds used for infrastructure development have created a substantial market for such bonds in the USA;
6. Pre-designed exit routes are commonplace in financing.

Accordingly each component element in the DECT package has been tested.

Finally the supply of tax relief reflects a mix of the following objectives:

1. To provide tax relief to encourage the development of markets which might otherwise fail e.g. VCTs;
2. To encourage development e.g. Gift Aid and on bonds;
3. To create new markets e.g. an DECT bond market in the UK equivalent to that it once had when local authorities issued such bonds or which exists today in the USA.

This tax relief should however be subject to continual review. If the DECT either fails to deliver sustainable energy in developing countries or high standards of governance and accountability then tax relief should be withdrawn. This would provide a powerful incentive for compliance.

As such, whilst the concept is novel, the component elements are not. As a result, rather like the projects a DECT might finance, it is innovative, without taking unnecessary risk so that the chance of it successfully delivering the planned outcomes is high.

For those who find them useful, a schematic diagram of a DECT is to be found at Appendix 1 of this report.

Finance for development - introduction

Finance for development has traditionally come from four sources:

1. donor governments or their agencies, including the international financial institutions (IFIs) such as the World Bank;
2. funds raised by developing countries, usually from issuing bonds;
3. foreign direct investment by commercial organisations;
4. development agencies acting on a charitable basis.

Of these four funding sources the second was largely discredited following the collapse of the economies of many developing countries and their consequent inability to meet their debt repayment obligations starting in about 1980 and continuing to the present.

The result has been unfortunate. Developing countries have had a reduced capacity to issue bonds of their own that has been acceptable to most financial institutions. They have instead been forced into relationships of dependency where they have to:

1. Borrow on an intergovernmental basis (the IFIs being included in this grouping), or
2. They have had to privatise much of their infrastructure to attract private capital; or
3. They have become dependent on aid.

The consequences have again been unfortunate:

1. A culture of dependency has been created;
2. These countries have lost control of many of their key assets;
3. External control of assets might have undermined prospects for developing identifiable local systems of management, accountability and transparency;
4. The human capital resources to reverse this process have been lost, largely by reason of those people in possession of them emigrating.

The result of these failings has not just been felt in the developing countries affected. There have been other consequences:

1. Too little cash is being raised from the Western market economies for direct investment in developing countries although opportunities or investment exist. This is a market failure;
2. The market in bonds from a large part of the world has been degraded to the point where it is difficult for mainstream financial institutions to hold bonds issued by these countries since they are not considered as being of 'investment grade' (see glossary). This has skewed the market in bonds so that two consequences have resulted:
 - a. The market cannot place funds where it might wish to;

- b. There is a shortage of government bonds in issue to meet demand from financial institutions for this type of investment (e.g. Overheated gilt markets burning pension funds, The Guardian, January 20, 2006, <http://www.guardian.co.uk/frontpage/story/0,,1690901,00.html>).
3. There has been a 'brain drain' from developing countries of people with the skills to work in finance in the developing world. This has exacerbated the increasing wealth divide between developed and developing countries;
4. Markets which should have been opened for development have not been because the necessary environment in which a market could operate has not been developed. In many cases this will have contributed to under development and the continuation of poverty.

The ideas contained in this report seek to address these issues in one particular area, that of creating sustainable energy supplies in developing countries. It suggests that it should be possible to create opportunities to issue both equity share capital and bonds to finance development of such energy supplies using a mechanism similar in initial construction to the UK's current Venture Capital Trusts, but with clear differences to suit the particular needs of the following groups:

1. Government agencies and IFIs who are likely to partner such projects;
2. The Governments of the developing countries that will host these projects;
3. Local investors from within those countries.

What it suggests is that if such a scheme were properly managed it would achieve two objectives:

1. It could increase the supply of sustainable energy;
2. It could open up equity share investment opportunities in developing countries for:
 - a. individuals resident in developed countries;
 - b. those looking to hold bonds in developing countries but who are themselves located in a developed country, and
 - c. a range of investors from developing countries.

How project finance works

Any arrangement to finance a new project moves through a number of stages. Almost without exception these are as follows:

1. the conceptual stage i.e. the period when the idea is created and refined;
2. the planning stage, when the concept is matched with specific criteria for acceptability e.g. its financial, social, environmental and welfare implications are assessed before approval is given, usually to a modified project;
3. a development stage where funding is raised and the infrastructure for the project is created;
4. a delivery stage where it is hoped the project will supply the benefits it was planned to deliver.

Each of these stages of development carries different risks and potential reward ratios:

The conceptual stage

At this stage of the project life the financial outlay is often quite small. This is a highly entrepreneurial stage (even if the project is not being promoted for profit) where innovative thinking develops a new solution to a perceived problem. Starting, quite often, with the proverbial 'back of an envelope' at this stage the project needs:

1. limited funding to allow visionaries to develop ideas;
2. expertise to translate vision into plans which can be assessed;
3. the availability of a mentoring process to ensure that viability remains the focus of attention of those engaged in the process.

At this stage of the process of development a high failure rate is likely. The quality of the process at this stage can be appraised by:

1. its ability to reject ideas that are likely to fail at an early stage and before many resources have been committed to them;
2. its ability to refine and develop potentially useful ideas into fully fledged plans that can be passed to the planning stage.

In the commercial world this stage will frequently be undertaken by entrepreneurs working with very limited funds but a high degree of enthusiasm and commitment. The same attributes might also benefit the development community.

The planning stage

At the planning stage a concept is turned into a viable plan which has been approved as meeting acceptable criteria for development. The resources required for this stage are greater than at the conceptual stage because several processes have to be completed:

1. Technical due diligence to prove the practicality of the concept has to be undertaken;
2. A financial planning process to either prove market acceptability of the plan or that cost / benefits can be equated has to be undertaken and rigorously tested across a range of possible outcomes;
3. Social, environmental and welfare outcomes have to be appraised in many cases;
4. The process of seeking approval for the proposal if all previous steps have been successfully completed has to be undertaken, and this usually requires the involvement of lawyers, which is rarely a cheap or simple process.

Inevitably this stage requires greater expenditure than the conceptual stage because the planning process is more detailed, flaws in the concept may be discovered as a result and re-appraisal and re-design may be required as a consequence, and the possibility exists that although the concept is good the necessary consents cannot be obtained for reasons either capable of anticipation, or not.

In the commercial world this stage might be financed by early stage venture capital funding. This will often be associated with limited product development and market testing as well as a commitment to theoretical planning. In all cases there remains a high risk of failure. The best vetting systems in the world cannot anticipate all the problems that a project can face until exposed to a high degree of scrutiny.

The development stage

At this stage substantial funds are committed to a project. All consents required for development have been obtained and initial viability has been tested. This stage might involve:

1. building the project infrastructure;
2. recruiting and training people to work on the project;
3. the detailed design of mechanisms for supplying the planned services;
4. market testing and development.

Risk of failure at this stage should be much lower than at the earlier stages of project development because problems should have been anticipated at that stage. However, experience shows that there are risks at this stage, usually associated with:

1. poor project specification or design requiring expensive amendment during the build process;
2. inability to recruit appropriate people to run a project;
3. failure of delivery mechanisms even though the product itself is well conceived;
4. incorrect assumptions as to market demand for the product or service.

The most likely are probably (1) and (4), with (1) giving rise to cost over runs and (4) to complete project failure or the requirement of continual financial support, but examples of (2) and (3) exist e.g. the UK's tax credit system meets a perceived need but the delivery process has proved largely unable to supply the desired outcome.

This stage of development would usually be financed with a mix of equity (share capital) and flexible financing e.g. bank borrowing in a commercial environment.

The delivery stage

The delivery stage is likely to be a period of relative stability after what has gone beforehand. It usually involves incremental innovation, the steady development of the market for the product, probable expansion of demand with consequent increased commitment of working capital for some time, and a planned process of replacement of resources, whether physical or human as they either wear out, retire or move on to new activities.

It is also possible that at this stage existing sources of funds will be replaced with new, cheaper funding. The replaced funds will have either been provided by bank finance or equity share capital which is then re-utilised elsewhere. The replacement funding will be loan capital, often using a bond. This finance can be used because:

1. risk at this stage is low;
2. returns at this stage are predictable;
3. the project should have positive cash flows during the delivery period enabling finance with a fixed date of repayment to be utilised.

Bonds are, therefore, most identified with this stage of the development process.

Summary

In summary, this section of the report suggests that there are distinct stages in the development of almost any project requiring financial outlay, whatever the motive for its creation, and that these stages require different forms of finance, each being slightly different dependent upon whether the private or public sector is funding the project:

Stage	Risk	Type of finance, private sector	Type of finance, public sector
Conceptual	Very high	Entrepreneurial	Local initiative (maybe unfunded), local authority, development charity, etc.
Planning	High	Early stage venture capital	Specific project funding
Development	Medium as to cost but lower as to delivery	Equity share capital and bank finance	Major project budget allocation
Delivery	Low	Bond	Bond

Implications for financing for sustainable energy in developing countries

If this summary is correct, any system of funding for sustainable energy in developing countries should match financing needs with the appropriate stage of development of projects. This report suggests that this is not happening and goes on to suggest how this might be done.

Finance for sustainable energy development

This model of project finance (which, whilst simplified generally holds true) needs to be applied to finance for sustainable energy in developing countries.

In this sector the stages in project finance remain as noted above whether or not the project requires support from a donor to ensure that it reaches completion. There are, however, important points to note:

1. The entrepreneurial stage of a development project stills needs funding, either within or without government, recognising that there is a high degree of risk taking at this stage. Outside government there is limited capacity to fund this stage at present, and this shortfall needs to be addressed;
2. The planning stage of a development project needs the concentration of expertise both nationally and internationally to ensure that the most suitable projects reach the development stage. In addition, centres of excellence need to be developed to ensure that the rare expertise needed to ensure effectiveness at this stage of project finance is enhanced and concentrated, so avoiding both too many mistakes and replication of expensive learning curves;
3. The development stage is the point at which differing options for funding exist dependent upon the type of project being undertaken. No project is without risk at this stage however, but the amount of risk varies, as this report will show. As a result this stage of development might be tackled in one of two ways:
 - a. Using private funding in its entirety, or
 - b. By matching private funding with government funding (whether through an IFI or not).

This possibility of combining public and private funding requires a new type of financial vehicle to be created to harness the strengths of both sectors. The Development Energy Capital Trust concept that this report explores seeks to fill this gap;

4. At the delivery stage there is an obvious opportunity for the use of bond finance to release 'quasi-equity' grant finance from IFIs, governments or development agencies for use in other projects where the risk profile of that funding better suits the current state of project development. Specific project financing of this sort is rare in development, and provides an opportunity that this report explores.

To overcome these issues this report proposes the creation of "Development Energy Capital Trusts" (DECTs) in the UK and elsewhere.

Development Energy Capital Trusts

The DECT concept is based on the UK's Venture Capital Trust model, which has been in operation since 1995 and is generally considered to have been successful at raising funds for high risk venture capital start-up companies. Venture Capital Trusts are explained in Appendix 2.

A DECT would have the following critical components:

1. It would be constituted subject to specific government legislation;
2. It would be quoted on an approved stock market;
3. It would be allowed to raise share capital using the reliefs and allowances available under the Venture Capital Trust Scheme subject to the following alternative conditions:
 - a. It could use its equity share capital to fund sustainable energy projects in an approved list of developing countries;
 - b. It would be required to bid for grant funding from governments or other agencies in either the developed or developing world to co-fund the development stage of those projects and could charge fees, including a recovery of 150% of the cost of the conceptual and planning stages of such projects for the supply of their expertise in managing that process;
 - c. It would have an obligation to replace development grant financing provided by governments or IFIs used in the projects it managed within 2 years of the completion of their development stage by issuing bond finance based upon the anticipated income stream that the project portfolio then under management;
 - d. The residual risk within the delivery stage of the project would be reflected by the bond income (which it would manage) being paid free of tax. The likely residual risks relate to:
 - i. Regime change;
 - ii. Nationalisation without compensation;
 - iii. Currency risk;
 - iv. Project failure due to market developments.
 - e. After a period of not more than 25 years the DECT would be required to offer the project in which it had invested to the government of the country in which the investment had taken place for a sum of not more than the original cost less any capital repayments funded out of revenue in the meantime, but with up to 50% of all available accumulated reserves being required to be placed at the disposal of the DECT for distribution to its members at that time.

Put differently, this structure creates three levels of finance (equity, grant and bond) which the DECT manages. These types of finance are explained in the next section.

Types of funding

There are three types of funding which a DECT might call upon:

1. Its own share capital;
2. Development grant finance from third parties that the DECT will manage on their behalf;
3. Borrowing, either from banks or by the issue of bonds.

It is important to note before considering the mix of funding which might be used that each type of finance has a different purpose and use both generally and in the context of a DECT:

Share capital

Share capital is risk capital. It is originally put up by the promoters of a company. If the company prospers that initial funding is increased by any profits that the company (or DECT) retains for its own use. The combination of share capital and retained profits is called shareholder funding. Shareholder funding is used to cover the risk in any project. In other words:

- a. This money is capital that might be lost;
- b. The returns on this capital are uncertain, and might be strongly negative or positive, depending upon outcomes;
- c. The timing of the return on this money is uncertain, and there is usually no right for the shareholders to claim it.

As a result of these combined factors the rate of return required on shareholder funding is usually high. The Venture Capital Industry looks at returns of between 30% and 60% per annum in many cases to cover the risk that in some projects losses will arise.

It is unlikely that returns of this magnitude will be required in a DECT for several reasons:

- d. Development grant finance is likely to reduce the risk to DECT shareholders in many cases;
- e. Projects using proven technologies and tested delivery systems for products for which markets are known and where operating costs are reasonably predictable are likely to be funded by DECTs, so reducing risk substantially once the development stage has been reached.

None the less, the rate of return required by a DECT from a project is likely to be significantly higher than the rate of return required by a bondholder since the latter have a much higher degree of security than the DECT shareholders, who may bear a disproportionate part of the residual risk of the project. Negotiation of the apportionment of the benefit of this residual risk will be a major factor in negotiating any agreements as to the split of

DECT, development grant and bond financing for a project to ensure that the risk of each party is appropriately matched to reward.

The reward to shareholders comes in two ways:

- f. Dividends, which are distributions of profits made, and
- g. Capital gains on the sale of their shares if these are quoted on a stock market or can otherwise attract a buyer.

In both cases the amount of tax charged on the receipt of the reward has an impact on the amount of risk that the owner of the shares is willing to bear.

Development grant finance

This finance represents social capital and is provided by:

- a. Donor countries, which are likely to be from the developed world who provide this support as part of their development programme;
- b. Host countries i.e. the governments of developing countries might themselves seek to support a project on which the DECT is working;
- c. IFIs (see glossary)
- d. Donor agencies or foundations.

The funding is either given outright i.e. without expectation of repayment, or by way of a loan. That loan may have non-market based conditions attached to it e.g. it is unsecured (see glossary) or the interest rate is below that which would be charged by a profit making institution.

The providers of this finance make it available because they appreciate that the project(s) being funded provide a return which the market cannot value, either because the service to be supplied has social, but little market value or because those to whom it is supplied cannot command the resources to make a market based payment for the resource which they do, nonetheless need.

Loan and bond finance.

Loan and bond finance comes in two essential forms (with almost innumerable detailed variations):

- a. Short term borrowing e.g. bank loans or overdrafts repayable on demand or over a relatively limited;
- b. Bond finance, issued under a formal loan agreement, with the bond being traded on a recognised bond market as a commodity in its own right.

Of these two forms of finance the first is likely to have some use during the development stage of some projects. Bond finance is however the key

additional source of finance that a DECT will use over and above its own share capital under the proposals made in this paper.

In saying this it should be noted that for the purposes of this paper leasing and related forms of finance have been ignored as they are likely to have little relevance to the proposed structures.

Bond finance can be issued by:

- a. Supranational agencies, such as the IFIs;
- b. National governments;
- c. Local authorities;
- d. Government sponsored entities;
- e. Companies;
- f. Special purpose vehicles.

A DECT is a combination of a company and a special purpose vehicle. It will be quoted on a stock exchange, like a public limited company, but will issue bonds which will be backed by one or (much more likely) a wide range of assets offering a range of security and risk. This makes it like an asset backed special purpose vehicle. A wide range of financial institutions hold bonds of this type including banks, pensions funds, life assurance funds, and consumer linked funds e.g. investment and other trusts. It is hoped that DECT bonds will be particularly attractive to pension and other such funds from developing countries.

The DECT - an overview

A schematic overview of how a DECT will work is to be found at Appendix 1.

In essence the steps will be as follows:

1. An organisation will decide to promote a DECT. This might be:
 - a. An aid organisation;
 - b. A financial institution (and this option might be especially attractive to Socially Responsible Investment (SRI) funds);
 - c. The government of a developing country seeking to attract funding;
 - d. Another interested party.
2. The DECT will be quoted on an approved stock exchange and will issue shares.
3. The shareholders will obtain tax relief on their investment as well as subsequently on the income and capital gains that result from their ownership of them.
4. The DECT will seek project applications for consideration. If the pattern of VCT behaviour is replicated they will be inundated with applications. It will appraise these at largely at its own cost although some match funding may be available.
5. A limited range of successful applications will be developed into fully fledged plans for projects, again largely at the cost of the DECT.
6. Once projects have passed the detailed planning stage finance will be sought for those still considered viable. Some of this funding will come from the DECT and a small part might be from host countries, but the majority will be supplied as grant finance from donor countries and IFIs who will, however make all, or most, of such cash available by way of a loan on the basis of the reasonable expectation (at this stage of the project) that it should be repaid when the development stage is complete.
7. When the development stage is complete the following will happen:
 - a. The DECT will be paid fees due to it for managing this process. These fees will depend upon success against initial budget;
 - b. The future viability of the project will be appraised to determine its capacity to support bond finance;
 - c. A bond will be issued either for the individual project or, more likely, for a portfolio of projects;
 - d. The development grant finance received will be repaid.

8. During the delivery stage the services the project was intended to supply will be made available to the target market with the hope that the project might match the financial expectations set for it and as a result that it will be able to meet its bond financing obligations. The DECT and host country will be primarily involved in management of the project at this stage to reflect the different interests having concern for its success. The DECT will earn fees for its engagement in this process. The bond payments due will be expected to repay the loan finance over the life of the project.
9. After an agreed period the project will be handed over to the host country in which it is located for their future management. The DECT will at that stage be due a termination fee (so providing it capacity to make a capital return to its shareholders) subject of course to project performance when compared with pre-set criteria.

What types of project the DECT will fund

The DECT model has an inherent implicit assumption, which is that the projects to be funded can generate a revenue stream which can be used to make payment of fees to the DECT for the value it supplies and to cover the cost of loan finance secured to fund its delivery. The model is particularly suited to energy markets for this reason, as these do, in almost all cases generate such an income stream. Not all development projects can, or should necessarily do so.

Projects which a DECT would finance are likely to include:

1. solar power schemes;
2. wind generation;
3. combined heat and power schemes in areas where there is a demand for heating;
4. biomass projects;
5. hydro projects if environmentally appropriate.

Clearly projects would need to be chosen on the basis of local suitability. Each such project is, however, likely to closely accord with the four stages of project development outlined in this paper, need financing of the sorts described and then deliver energy from which an income stream can be generated to repay borrowed funds. Each is also likely to be able to provide asset security on which to secure part of that borrowing. In total such schemes are big enough to support the funding structures envisaged, but projects of this type also offer the range of diversification that might be required to ensure projects are attractive to financiers.

DECTs will not be suitable for projects with a short term objective which are unlikely to result in the creation of a tangible asset.

As such DECTs should be seen as a new way of financing sustainable energy infrastructure in developing countries.

The DECT finance mix

The DECT seeks to combine the three sources of finance noted above in a new way in combination with tax reliefs that have not been used before for this purpose in the UK. It is this combination of finance and tax relief that is key to opening up the market to private capital in this area.

The DECT will mix these funds in different ways at each stage of the projects it manages, as follows:

1. Conceptual and planning stage

The funding requirements of these stages are broadly similar, and the financial mix is likely to be alike subject to the differences noted below.

The funding of the conceptual stage will be as follows:

Sources of funding	<ol style="list-style-type: none"> 1. DECT equity share capital 2. Possible match funding from government, academic or other agencies if available
Use of funds	<ol style="list-style-type: none"> 1. Early stage assessment of projects either in house, or more likely, by others through the giving of grant finance.
Primary role of the DECT	<ol style="list-style-type: none"> 1. To encourage conceptualisation; 2. To create cost effective proposals at this stage; 3. To select those projects worthy of further development; 4. To share expertise so that individual projects can be produced at lower cost by reducing the learning curve to be climbed before potential viability can be proven.
Potential return on investment	<ol style="list-style-type: none"> 1. None at this stage. This process is a risk capital exercise undertaken to identify potential projects that might attract later stage funding and which will earn returns at that stage.

When a project has been approved by the DECT for advance to the planning stage the following would happen:

Sources of funding	<ol style="list-style-type: none"> 1. DECT equity share capital; 2. Match funding from government, academic or other agencies if available
Use of funds	<ol style="list-style-type: none"> 1. Detailed planning of projects; 2. Technical, marketing and financial due

diligence;

3. Preparation of plan documentation to support a bid for development stage funding internally and, as importantly, from third parties.

Primary role of the DECT

1. To ensure best use of expertise;
2. To quality control the planning process;
3. To ensure sufficient viability is proven to justify the risk of seeking development finance;
4. To source potential development finance and to negotiate that funding for the project;
5. Seek an appropriate balance of interest between the parties engaged in the contract to develop the project;
6. To look for a commercial return for its members.

Potential return on investment

1. None at this stage. This process is a risk capital exercise undertaken to secure funding for projects that might earn returns at a later stage.

2. Development stage

Once a project has reached the development stage it will have secured funding to ensure it can be delivered. The type of funding will depend upon a number of critical issues which can be summarised under the following groupings:

1. Risk;
2. Diversification.

Each is considered in turn.

a. Risk

Risk can in turn be split into different components. Without ever hoping to be comprehensive (because this is virtually impossible in a general paper) and with the inevitable risk of being simplistic being accepted, the risks that are faced in investing in a development project are likely to be:

Type of failure	Description of consequence	Likely consequence
a. Technical failure	Design does not work, equipment is unsuitable, surveys prove to be wrong, etc.	Either project abandonment or cost over-run
b. Contractual	The contract that was	Cost over-run due to

failings	issued was not for the project that was required	contract revision
c. Contractor failure	The contractor is bound by the contract but is unable to deliver it	Cost over-run when a new contractor has to be engaged
d. Delivery failings	Contract is not completed on time delaying receipt of revenues	Revenue shortage and maybe cost over-run requiring extra funding in either case
e. Currency risk	Funding is raised in one currency and the cost of contracting is settled in another and the exchange fluctuation between the two is not properly covered	Cost over run, or cost saving (either possible)
f. Market failure	Once complete the project fails to deliver the required benefits to justify the investment made	Revenue shortfall
g. Efficiency failing	Once completed the cost of supply of the planned service is greater than anticipated, so reducing the planned available cash flow needed to cover the cost of development	Net revenue shortfall
h. Obsolescence	The project is rendered obsolete before its planned life expires for any reason (technology, destruction, market change) and so fails to generate revenues over the expected life of the project	Net revenue shortfall
i. Regime change	The government of the country in which the project is located either 1) nationalises it or 2) fails to honour commitments	Anything from complete loss of the project to a revenue shortfall. There could be an early exit if compensation for

	it has made to support its construction or operation	nationalisation is received.
j. Project extremely successful	Either a) it is built on time or b) at below cost or c) demand exceeds expectation or d) operating costs are lower than expected or e) it lasts a lot longer than planned	There is an unexpected surplus to distribute about which people could argue

Risks (a) to (e) happen at the development stage.

Risks (f) to (h) happen at the operating stage.

Risks (i) and (j) could happen at any stage, at least in theory.

b. Diversification

It is not true to say that small projects are less risky than large projects. Nor is it true that projects in country A are necessarily riskier than projects in country B, since the unforeseen can always happen (and sometimes does). But it is certainly true to say that risk is reduced by diversification and that this does, in consequence have an impact on the type of funding that can be used for a project. This is best demonstrated by looking at example of the types of risk and seeing how they can be managed, with that risk being reduced the greater the number of projects in a portfolio:

Type of risk	High risk	Low risk
a. Technical failure	New, untried technology	Proven technology that is already in use and working
b. Contractual failings	One contract for a new, unproven technology	Spread of contracts for 'off the shelf' technology
c. Contractor failure	Little known contractor working outside field of expertise and beyond previous scale of experience	Large, known contractor with a wide portfolio working well within their capacity
d. Delivery failings	One project	Many projects
e. Currency risk	Many currencies involved	Either one currency used throughout or a

		spread of currencies providing natural hedging of risk
f. Market failure	Untried service or service delivery concept	Proven product and delivery mechanism for which it is know people will pay
g. Efficiency failing	Untried technology relying therefore solely on forecasts	Proven technology providing benchmark for performance
h. Obsolescence	One project	A range of projects
i. Regime change	Operation focussed on one country	Investment over a wide range of countries
j. Project extremely successful	One contract maximises upside risk	Chance of gains being balanced by losses higher with diversified portfolio.

The point about this table is that it shows that risk can be managed if a diversified, relatively low tech portfolio of investment for proven services is supplied over a spread of countries using known contractors. None of this means that some projects will not run into significant problems if these maxims are followed; it just means that if that happens there is an increased chance of another project doing well, and overall a reasonable return being earned.

Venture Capital Trusts manage their risk (which is real) and almost inevitably relates to unproven technologies with unproven markets in several ways:

1. Investing in management with a proven track record of delivery in these circumstances;
2. Seeking short time frames for returns so that the option to abort projects that are unlikely to deliver a return can be closed as early as this can be determined in their life-cycle;
3. Diversifying their portfolio over a wide range of projects.

A Development Energy Capital Trust has a different profile from a Venture Capital Trust. For example it need not invest in unproven technology, and it need not seek to innovate markets, it may simply extend the market for energy products or services for which there is proven demand elsewhere. Likewise, unlike many technology companies it might be able to use proven delivery methods for which there is already some considerable experience. But it will still face risks, juts as inevitably as a VCT and it might best manage these by:

1. Diversifying its portfolio into a range of projects, which might themselves have varying size;

2. Diversifying its portfolio across a number of countries;
3. Choosing to work with experienced managers;
4. Working with well-proven contractors;
5. Securing the best quality due diligence, legal advice and planning in advance of projects proceeding given that the technologies to be used might be reasonably reliably tested if they do not seek to be completely innovative.

The practical uses of these various types of funding within a DECT at the project development stage are as follows:

Type of funding	Type of project it might be used for	Likely funding it will be mixed with
1. DECT Share capital	<ol style="list-style-type: none"> 1. Small projects using proven technology spread over a range of countries supplying products that are expected to be commercially viable. 2. Large scale projects requiring development grant finance at least in the development stage. The DECT will manage these projects and earn a reward, payable if the project is delivered on or under budget meaning it is essential that its shareholders have an equity stake in such projects. 	<p>Bank or other short term borrowing in the development stage. Long term bank based funding in the delivery stage. Unlikely to mix with bonds, but if the portfolio of projects was big enough it might.</p> <ol style="list-style-type: none"> a. Development grants, whether outright funding or provided by way of loans. The DECT will manage these on behalf of the donor to ensure project supply. b. Bank borrowing during the development stage c. Bond finance (possibly) during the development stage if the income stream looks secure, and definitely during the delivery stage.
2. Development grant finance	<p>Any project where there is a social value exceeding market value.</p> <p>The use of such finance might also be necessary to cover some of the</p>	<ol style="list-style-type: none"> a. Share capital (as above); b. Bank borrowing (possibly) during the development phase; c. Bond finance (possibly) during the development phase;

risk in developing some projects, but will be repaid when a reliable estimate of the income available to support a bond can be prepared, and a bond can be issued.

Note:

Unlikely to mix with bond finance in the delivery stage when the loan element of development grant finance should have been repaid with the proceeds of the bond issue and any outright grant element of development grant should have been written off.

3. Bond finance

Any size of project, possibly at the development stage but most likely during the delivery stage when the capacity of the project to cover the capital and interest payments due will have been assessed. May cover one or more (and maybe many) projects to diversify risk.

a. As noted above.

With regard to development grant finance the following should be noted:

1. It is unlikely that donor agencies will play a significant part, not least because the DECT concept is, at least in part, meant to be an alternative to the funding they can supply.
2. Host countries may well be critical partners in the provision of development grant finance from the viewpoint of governance and the eventual integration of the project into the local energy infrastructure, whether it be market or government managed. However, if host countries were able to fund the project by itself the involvement of a DECT is not likely to be required in most cases, and as such their input may be notional rather than significant.

This, therefore, makes it likely that a DECT project will be grant funded, when that is required, either by a donor country or an IFI.

The significance of the use of bonds for development stage finance

The important difference that the DECT provides to both IFIs and donor countries when they supply development grant finance for sustainable energy in developing countries is that such funding will be provided under the explicit assumption that it will be repaid at the close of the development period, unless agreed otherwise at the outset or to the degree proved necessary by subsequent, but unforeseen events. In other words, whilst there will be risk in the development stages of these projects (as identified above) unless there is a total failure of the project that risk is limited because it is planned from the outset that the project will be refinanced once the development stage is complete. That refinancing will be with bonds paid for out of the operating surplus the project should be able to generate at that stage. This means that the loans from development grant financiers used to fund the project can in fact be treated as such, and not as grants or underwritten guarantees so long as evidence of the likelihood of repayment is available. This follows the precedent set in the UK by the loans provided to Network Rail. As such these loans should not be an expense to the budget of the donor country or IFI when provided but should, instead, be accounted for as loans.

This will not prevent part of the sum loaned being provided for, or written off as a grant where the following conditions apply:

1. The project is never likely to pay a commercial return on the cost of its development but is none the less desirable for social reasons. In that case recognition of this fact from the outset is required, and has to be covered by government backed funding as no other likely source is available for most projects (unless they are small and within the scope of development agencies).
2. When it is clear that original cost estimates are being exceeded and extra funding is needed for which there is no obvious means of repayment. This, however, would need to be appraised as the project developed, and would not be known at the outset.

The ability to treat most loans as such from the outset is, however, a major advantage of the DECT scheme however. Its commitment to replacing development funding with bond finance upon completion of the construction stage of any project means that loans can be accounted for as such, and not as costs on development budgets and this structure means that development budgets can be leveraged for greater use by governments with a much greater degree of confidence than is the case at present.

3. Delivery Stage

As the project moves from the development to the delivery stage it is planned that it will be refinanced. It is stressed that this is a normal part of

the financing lifecycle of long term projects now funded by most forms of public / finance partnership. It has, for example, become commonplace in UK Private Finance Initiative (PFI) projects, although the failure to anticipate that possibility has been a cause of some stress as a result. The DECT proposal does not fall into this trap because it specifically anticipates this process.

The objectives of the refinancing are as follows:

1. To repay all bank and other short term borrowing;
2. To repay all development grant finance to the extent agreed possible;
3. To pay any sums due to the DECT under the terms of its management contract;
4. To replace short term and development funding with long term bond finance.

It is stressed that it is considered essential that the involvement of the host country and the DECT will continue after the re-financing. It is also possible that the involvement of development grant financing might continue, but only if their loans cannot be replaced by commercial borrowing because of the level of risk inherent in the project.

It is also stressed that unless the project was of substantial size it is likely that the replacement bond finance would not be particular to an individual project but would instead cover a range of projects by both size, project type, risk profile, location, etc. to diversify the risk to the lender and so minimise financing costs for the reasons noted previously in this report.

At the time of refinancing the following activities would take place:

1. The outcome of the development stage would be assessed. There would be a threefold purpose:
 - a. To determine the extent to which the project had been delivered on budget;
 - b. To determine the effectiveness of the DECT in managing the project to budget and accordingly the fee due to it for its success, or otherwise in this respect (including whether in the event of significant failure an additional contribution to costs was required from it as a penalty for underperformance);
 - c. To determine how much of the development grant finance provided during the development stage of the project could be repaid using bond finance.
2. To achieve objective 1(c) the business plan for the project would be re-appraised based on:
 - a. The outcome of the development stage;

- b. The revised estimates of the potential market, with revision being required in the light of experience obtained as the development has progressed;
 - c. The revised anticipated costs of delivering the project.
3. The resulting business plan should indicate the likely capacity of the project to support a future positive cash flow which could be used to support repayment of bond financing, covering both capital repayment and interest. This capacity would then, dependent upon the rating (see glossary) that the bond to be issued might be given indicate:
 - a. The likely interest rate;
 - b. The potential term;
 - c. The likely cash flow cost of the bond, and, by deduction,
 - d. The amount of borrowing that the project could support.
4. When this is known the review process can be concluded by:
 - a. Paying any fees due to the DECT;
 - b. Issuing the bond finance;
 - c. Paying back all, or as much as possible of the development grant finance;
 - d. Putting the structure for the delivery stage in place.

Delivery structure

It is vital that any project have the right structure to ensure that the energy benefits it is designed to deliver are actually supplied. The delivery structure has to meet the following objectives:

1. Ensure that delivery takes place;
2. Ensure that bond payment obligations are met;
3. Ensure that the social benefits the providers of grant finance sought to secure are delivered;
4. Seek to secure a return for DECT investors;
5. Ensure the project is delivered to the host country for further use (if possible and appropriate) at the close of the DECT investment period;
6. Ensure good governance.

This is a long list of difficult tasks to achieve. It will require a commitment to management in which the DECT and host country both play a part, with representation from development grant financiers being an option if they require it.

The board responsible for managing the project (which might be a single board for large projects or an oversight board if the projects are smaller) will have to:

1. Ensure the project is commercially managed;
2. That cash flow is maintained;
3. Social and financial covenants (see glossary) are fulfilled;
4. Transparent accounting takes place.

The may well also have to comply with conditions laid down as a condition of the security offered to bond financiers who might have a charge over either the assets of the DECT or its future income stream.

If the board meet their objectives the following will happen:

1. The project will deliver the goods or services expected of it;
2. The community the project was meant to serve will benefit as intended from the supply of sustainable energy and other key performance indicators (e.g. environmental or social) will be met;
3. The project will generate an operating cash flow surplus;
4. That surplus will be more than enough to meet the obligations to bond holders;
5. There should also be a surplus to ensure necessary capital replacements during the life of the project;
6. Assuming that these targets have been met there should be a remaining surplus for the DECT to distribute to its shareholders;
7. At the end of the project there should be an accumulated project surplus to be split between the DECT and the host country to provide

an endowment fund in accordance with a pre-agreed formula. The host country would use its share to manage the project without DECT involvement. The DECT will be able to distribute its share to realise what is, in effect, a capital gain in the event that the project has been appropriately managed;

8. All these actions will have taken place within a transparent and accountable framework.

DECT - summary of benefits

For DECT members	<ol style="list-style-type: none"> 1. They get tax relief on making their investment; 2. They get tax relief on all income and capital gains realised; 3. They benefit developing countries whilst undertaking a tax efficient investment.
For the DECT sponsor	<ol style="list-style-type: none"> 1. The chance to attract private capital to sustainable development projects in developing countries; 2. The creation of "corporately responsible" businesses; 3. Applying professional skills to areas the market has not conventionally reached; 4. A new financial product to sell of which there is no current equivalent.
For the creator of projects (whether individuals, organisations or governments in host countries)	<ol style="list-style-type: none"> 1. A new source of funding where they might be a key player in management from the outset; 2. A source of funding where ownership reverts to the host country after a defined period; 3. A commitment to transparent management in which they can participate throughout the project life; 4. The energy, environmental, social and economic benefits that the project should supply are delivered.
For donor countries, IFIs and agencies (development grant financiers)	<ol style="list-style-type: none"> 1. A commitment to public / private partnership in which sound management practice can be combined to host country involvement within a framework where the exposure to financial risk on the part of the development grant financier is limited because of the commitment, made at the outset,

to replace their funding with commercial bonds once the delivery stage of the project is reached.

2. The release of new funds for development at minimal tax cost, so assisting them to meet their Millennium Development Goal commitments by gearing their commitment through market mechanisms.

The bond financier

1. A new and diversified market in which to invest;
2. Tax incentives (see below);
3. An opportunity to seek specific security for bonds in developing countries in a known and regulated management environment with reduced consequential risk for the lender.

DECTs - an example

The following, simplified, scenario explains how a DECT might work:

1. A development agency agrees to partner a financial institution to launch a DECT:
 - a. The development agency provides development expertise;
 - b. The financial institution provides the skills needed to raise the funds required;
 - c. They agree that the DECT should engage appropriate staff in the UK and in host countries to appraise projects, those staff providing a combination of technical, energy, financial and commercial skills.
2. The DECT is launched on the stock market and raises £75 million with tax relief of up to 40% being given on this to individual investors buying shares;
3. The DECT advertises for people who wish for funding for projects;
4. The DECT reviews those projects (stage 1, conceptual stage) and selects those worthy of further investigation in stage 2 (planning stage);
5. The planning stage involves extensive due diligence of those projects that passed stage 1 and might involve some funding for them as they undertake development of their idea to prove, at least in their early stages that they are viable. This might for example, involve:
 - a. Building a small scale solar project to prove likely energy generation rates as a precursor to a larger scale enterprise;
 - b. Negotiating permission for a combined heat and power project and proving that viable, sustainable energy supply sources are available before committing to the build process;
 - c. Undertaking testing over a period of time to prove the potential of a wind generation project;
 - d. Testing the potential revenues that could be raised from energy supplies;
6. If the Stage 2 technical assessment proves positive then funding would be raised. This could be a combination of:
 - a. DECT share capital funding;
 - b. Money from a donor country or IFI;
 - c. An involvement (even if small scale, but securing significant representation rights) from the host country;
 - d. Funding from the DECT might amount to £2-3 million. IFI or donor country financing might be several times that amount for each project.
7. The third, delivery stage would then commence with the project being built. The DECT would manage this process but the work would be undertaken by contractors. The DECT's work would be undertaken under the oversight of a board comprising representatives of the DECT, the donor countries and the host country;

8. When the development stage was complete refinancing of the project would be planned based on its likely commercial capacity at that time. That refinancing would determine:
 - a. How much of the donor country or IFI loans used in the development stage could be repaid and how much should be written off (if any) as a grant;
 - b. What management fees were due to the DECT based on the success of their work in delivering on budget;
 - c. What the ownership structure of the on-going project should be based on performance to date (e.g. if donor countries have been repaid they have no ownership at this stage, but if they have not been they will require continuing involvement which will have to be reflected in the management structure). It is however stressed that at this point:
 - i. The DECT has a continuing duty to manage the project;
 - ii. The host country has an integral role to play in the governance process by supplying non-executive directors to ensure appropriate oversight and the fulfilment of agreed social, environmental, energy and reporting objectives;
 - iii. The role of the host country might be larger if it has also supplied significant capital;
 - iv. If major host country institutions e.g. pension funds or banks have subscribed for DECT bond finance they might be granted observer stage at board level meetings for the project at this stage;
 - d. A bond will be issued, either for the particular project if it is large, or much more likely as part of a composite issue covering a range of projects, and the IFI and donor country loans will be repaid using the proceeds of this bond issue. The bond will be secured with a charge on the physical assets of the project and a charge over its revenue stream, but both would expire at a pre-agreed date and the right of the host country to recover the asset at that time could not be changed.
9. During the delivery stage the project is run by the DECT subject to the governance arrangements noted in the previous paragraph, but with the DECT having a duty to ensure:
 - a. Bondholders are paid;
 - b. The objectives of the project are fulfilled, which will earn them their return;
 - c. The project is in a fit state to be transferred to the host country at the end of the bond repayment period.
10. At the close of the bond repayment period the bond is cancelled (unpaid if that has proved to be impossible) and the asset is transferred to the host country without charge.
11. The DECT has the right to collect a part of any surplus funds generated above the obligation to repay the bond at this period as a

terminal bonus for managing the project to be paid to its shareholders as part of their return.

The bond financier, tax relief and the size of the potential market

So far in this report it has been suggested that the investor in the DECT should be offered tax relief to invest in that fund. The reasons are twofold:

1. If they invested in high risk start up projects in the UK they could obtain that tax relief through a Venture Capital Trust (see appendices 2 and 3);
2. If they gave their money to a charity for it to use for this purpose in a developing country they would secure tax relief through the Gift Aid scheme.

The overlap of these two arrangements suggests that it is reasonable that tax relief be given to those who invest in DECTs who will, in the process, risk losing that investment even if benefits are provided to others as a result of the use of their funds.

It is also the case that tax relief for bondholders can be a powerful incentive for investment. There are few opportunities for a UK resident person to invest in bonds and receive the income free of tax. This is not the case in the USA where local authority and certain other bonds are always free of tax in the hands of the recipient of the income. This has resulted in the creation of an extremely large municipal bond market which might be summarised as follows:

Municipal securities are debt obligations issued by states, cities, counties, and other governmental entities to raise money to build schools, highways, hospitals, and sewer systems, as well as many other projects for the public good.

Municipal securities are the most important way that U.S. state and local governments borrow money to finance their capital investment and cash flow needs.

An important distinguishing characteristic of the municipal securities market is the exemption of interest on municipal bonds from federal income taxes. The implicit subsidy provided by the federal government permits municipal issuers to compete effectively for capital in the domestic securities market.

There is currently in excess of \$1.8 trillion in outstanding municipal debt, comprising obligations of approximately 50,000 issuers.

(source <http://www.investinginbonds.com/MarketAtAGlance.asp?catid=31&id=78> accessed 9.6.06)

It should be noted that the outstanding bond balance is approximately \$6,040 for every single US resident person (population data source: CIA World Factbook, accessed 9.6.06). There is no such equivalent market in the UK.

If tax relief were to be provided on investment in bonds issued by DECTs then:

1. The cost of financing of development projects would be reduced;
2. The consequence would be that the amount of development grant finance that could be repaid would be increased;
3. As a result the direct cost to governments of supporting the projects and IFIs would be reduced;
4. The likelihood of raising bond finance would be increased;
5. The total funding available is likely to be enhanced out of proportion to the loss of revenue suffered.

It is, however, recognised that tax relief does, itself, have a cost. It may therefore be appropriate to limit the value of bonds any individual can hold which might be subject to tax relief. This is a concept found in VCT legislation where there is an annual subscription limit of £200,000 (see appendix 2). If this was considered an absolute limit and the interest rate paid did not exceed 5% (having allowed for risk) then the tax relief for each bondholder would not exceed a cost of £4,000 per annum.

There are 418,000 individuals in the UK with net assets excluding their domestic residence of in excess of US\$1 million to invest (source: World Wealth Report 2005, Merrill Lynch / Cap Gemini). They, on average, allocate about 27% of their wealth to bond based investments (Source, *ibid*). Their average wealth is about \$3.4 million. This means their average bond holding is about US\$900,000 (approximately £500,000). A £200,000 holding limit is not, therefore, a constraint on likely portfolio holdings but opens a market potential of maybe £83 billion (by extrapolation). Clearly only a small part of this potential needs to be captured for DECTs to have a substantial impact on the development finance agenda. These calculations do also not consider lower net worth individuals and fund investment.

Why tax relief should be given

This reports suggests that tax relief should be given for investors in DECT shares and DECT bonds.

The reliefs are different. Shareholders would get:

1. tax relief on the cost of investing in DECT shares to a limit per annum;
2. exemption form tax on all income derived from the DECT;
3. exemption from capital gains tax on the disposal of their DECT shares.

Bondholders would get a reduced rate of relief, being:

4. exemption from tax on the first £200,000 of investment in DECT bonds.

The first relief replicates two existing UK tax reliefs:

- a. that provided for Venture Capital Trusts (see appendix 2) to which there are obvious comparisons;
- b. that provided for donations to charity under Gift Aid schemes when much of the work done by DECTs may well replicate, or replace, work done by development agencies and with which it certainly shares an objective.

The provision of relief in these cases does, therefore, simply extend the logic of existing UK tax reliefs for necessary and deserving investment which might not take place without such incentives being available, as is clearly he case in the area being discussed because no investment market exists in this area.

The bond relief is, effectively, new in the UK although matches (to some extent) the principal inherent in tax free income from ISAs and in small part some exemptions for National Savings. However, the reason for suggesting it is:

- a. the evidence that such reliefs can help the growth of infrastructure bond markets, as shown by the USA (noted above);
- b. the fact that these funds will have risk associated with them requiring an initial stimulus to create the market;
- c. the fact that these funds achieve a social goal worth supporting and for which tax relief is available in other ways.

The reduced relief compared to the DECT shareholding is appropriate as the risk is somewhat less.

Governance issues - why tax relief should be withdrawn

Tax relief is given conditionally to VCT projects. It is a requirement of continuing to benefit from the relief that the VCT conditions are met for a specified period.

Similar conditions should be imposed on a DECT. The DECT should be responsible for ensuring that:

1. Funds are invested in the agreed list of qualifying countries;
2. Funds are invested in sustainable energy projects (for a which a definition would need to be agreed, capable of being updated as technology and understanding developed);
3. The projects do actually deliver energy from sustainable sources (i.e. a success criteria has to be established after a period of time);
4. The governance arrangements suggested for DECT, donor countries and host countries are appropriately established and are seen to work;
5. Reporting on a transparent basis is established;
6. Anti-corruption policies have to be established and audited;
7. Clear criteria for project acceptance have to be established and applied consistently, with sufficient reporting required that this can be appraised;
8. Full disclosure of any related party transactions and potential conflicts of interest must be disclosed;
9. Taxes must be paid;
10. Expectations for repayment of donor country funding used during the development period must be published at least annually;
11. Likewise, the ability of the DECT to service its debt should be specifically reported upon annually;
12. The progress towards transferring control of the DECT project to host country control must be monitored and reported upon;
13. DECT reports should be available in the languages of the areas in which projects are hosted.

Other local criteria will need to be established to suit each project and host country. The objective should, however, be to achieve the highest levels of governance and accountability. If they are not DECT tax relief should be withdrawn, which should provide a powerful incentive for compliance.

Local sources of finance

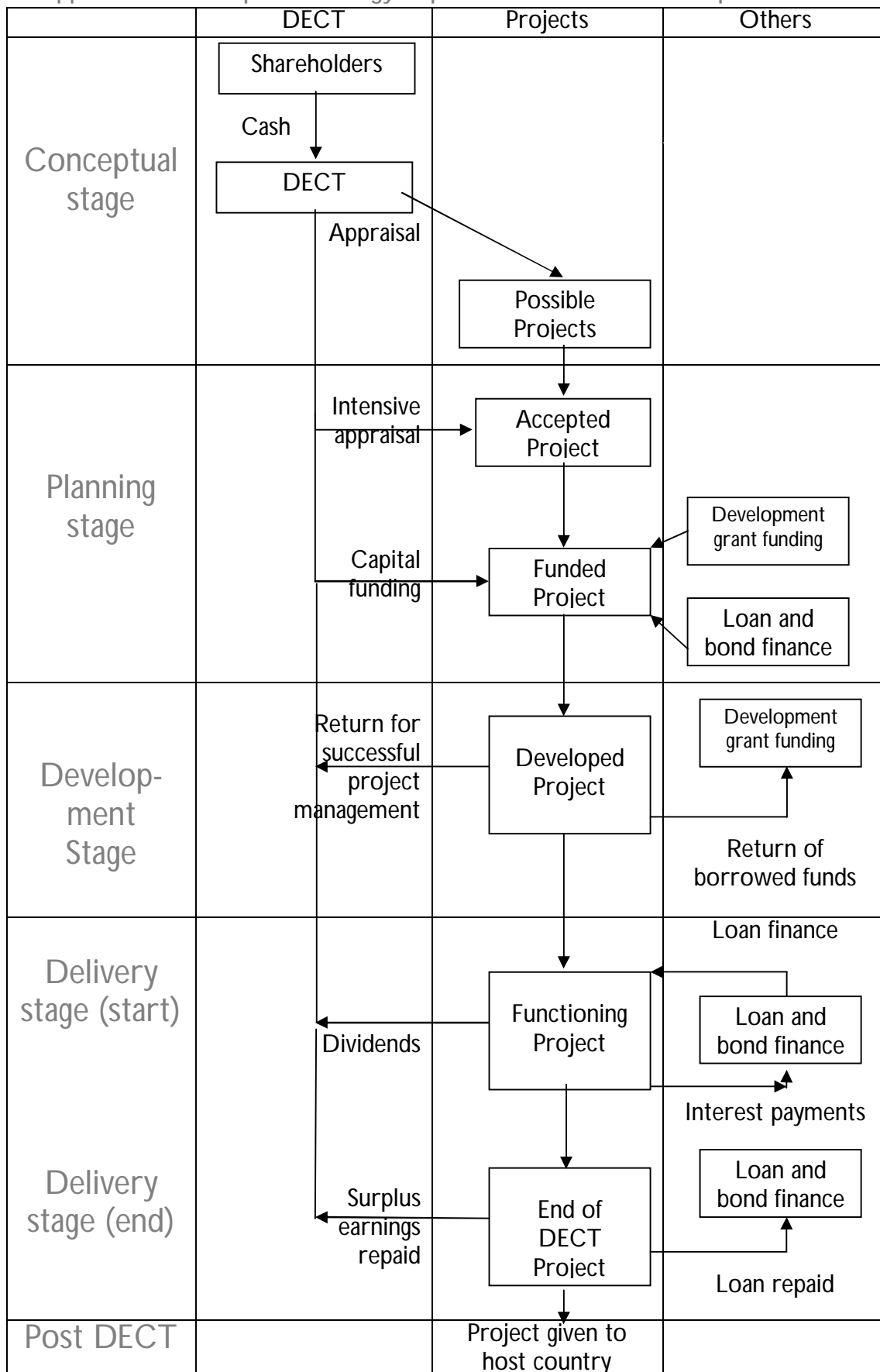
This report has focussed upon raising finance in developed countries to this stage. It is however important to note that the DECT projects might have a powerful market for their bonds amongst host country investors, including their own pension and investment funds.

Some of these funds are small, but those run for state employees are frequently of sufficient size to play a significant role in local financing. Bonds could be made attractive to these markets by:

1. Ensuring they are tax free locally;
2. Issuing them in local currency which would reduce risk for the project.
3. Local currency bonds could then reflect the interest rates of the local economy or offer a mild premium for local investors;
4. Granting governance arrangements that encourage host country bond-holding participation.

These arrangements would need to be designed for each scheme and country to suit local conditions.

Appendix 1 Development Energy Capital Trusts - Schematic Representation



Appendix 2

Venture Capital Trusts (VCTs)

VCTs were introduced to the UK in 1995. They operate as follows:

- The VCT is itself a quoted company;
- It invests in a range of unquoted companies;
- The companies it invests in must meet certain criteria, but are usually early stage entrepreneurial companies;
- Because the companies the VCT invests in are high risk, and the government wants to encourage funds into this area and believes insufficient would be invested without compensation for the risks involved the following tax reliefs are given (after 5 April 2006):
 - a. Tax relief at 30% can be given on an investment of up to £200,000 in a year (the top rate of income tax is 40% in the UK);
 - b. The relief is conditional and is confirmed when the investment has been held for 5 years;
 - c. Any income received from the VCT is tax free;
 - d. When the VCT investment is sold any gain is free from capital gains tax.

These are substantial incentives. In 2005/06 tax year VCT relief cost HM Revenue & Customs a total of £315 million (source: HMRC). Maximum rate tax relief in that year was at 40% and some of the cost might be attributable to the relief on distributed income and gains, but it is commonly assumed that much relates to the initial sum invested since this is the only reliable data HM Revenue & Customs have, in which case it is reasonable to assume that more than £600 million was invested in such funds in that year. It should be noted (Appendix 3, below) that more than this sum was invested in 2004 by Venture capital Funds in the types of company in which VCTs are allowed to invest.

This example shows the power of tax to attract investment funding into high risk areas.

It is worth noting that the total cost of relieving the income of charities from tax and in providing tax relief on deeds of covenant and Gift Aid in the same year amounted to £1,020 million - little over three times as much.

Appendix 3

The UK Venture Capital market - a benchmark for funds available

The following comes from the 'British Venture Capital Association Report on Investment Activity 2004' (the most recent available) (available from <http://www.bvca.co.uk/> and accessed 9.6.06) and summarises UK Venture Capital Activity of the type funded by VCTs during the course of that year.

- *The number of UK companies financed at the start-up stage increased 3% to 190 from 185 in 2003, representing 2% of the total investment amount at £96 million, up from £73 million in 2003. The average start-up financing was £0.5 million in 2004, compared to £0.4 million in 2003.*
- *Investment in other early stage companies fell slightly to £188 million from £190 million in 2003. The number of companies financed at this stage, however, increased by 9% from 242 to 264. The average financing at this stage was £0.7 million compared to £0.8 million in 2003.*
- *45% of all companies backed were in the total expansion stage category. These are businesses that required funds for working capital, new plant, acquisitions, etc. Excluding those that also benefited from secondary purchases and the refinancing of bank debt, 522 companies were financed, down by 10% from the 582 financed in 2003.*
- *Investment at the expansion stage increased by 65% to £789 million in 2004 from £477 million in 2003. The average financing at the expansion stage almost doubled from £0.8 million in 2003 to £1.5 million in 2004.*

The funding made available totalled £1,073 million in 2004.

It does not, of course, follow that similar funding would be available for DECTs, but it is suggested that these figures give a useful indication of the size of the UK market for high risk. Early stage investment when tax relief is given as an incentive to invest.

Appendix 4

Glossary

Bonds	Money borrowed under a formal loan agreement and with the resulting bonds being traded on a recognised bond market as a commodity in its own right.
Covenants	Obligations accepted under the terms of a contract and with which the organisation granting them has to comply e.g. a social covenant granted to a development grant financier might be to ensure that a set proportion of children in a school might not be charged fees for attending whilst a financial covenant granted to a bond holder might be that the property will be insured to make sure that the bondholder does not lose the value of the asset in the event of disaster striking.
DECT	Development Energy Capital Trust - see text of the report
Developing country	A developing country is a country with a relatively low standard of living, undeveloped industrial base, and moderate to low Human Development Index (Source: Wikipedia)
Development grant finance	Finance supplied by a donor country or IFI that is intended to be repaid from the proceeds of a bond issue by a DECT
Dividends	A financial return to shareholders paid out of the accumulated profits of a company (or DECT).
Donor agencies	Charities and similar funds that make money available for development projects
Equity and equity capital	See share capital
IFIs and International Financial Institutions	Generally considered to be the International Monetary Fund (IMF), World Bank (WB), the African Development Bank, Asian Development Bank, Bank for International Settlements, European Bank for Reconstruction and Development, the G8 and the Inter-American Development Bank
Interest	The price of borrowed money (Bannock, Baxter and Rees, Oxford University press, 1978) or the rent paid for the use of money (Wikipedia, 2006)
Investment grade	A bond is considered investment grade if its credit rating is BBB- or higher by Standard & Poor's or Baa3 or higher by Moody's. Moody's and Standard & Poor's are rating agencies (see below). When rated lower than this bonds are referred to as 'junk bonds'. There is a market for them, but banks usually have limited capacity to buy them, so reducing the market for them considerably.
Rating agency	To give them their full title, these are credit rating agencies. They are companies that publish credit ratings

Secured / security	<p>for organisations that issue commercial bonds that are traded in specialist bond markets. A credit rating is a measure of the risk inherent in a loan and as such influence the interest rate that has to be paid; the lower the risk the less chance there is of default and so the lower the interest rate that has to be paid.</p> <p>Lenders want to know that they will recover the money they have loaned to a person. To increase their chances of doing so they often take some form of 'security' related to the loan they have made. The most common example known to most people is the 'mortgage' the secures the loan people take to pay for their domestic home; the security the mortgage supplies being the right of the lender to claim and sell the house to clear the debt in the event that the homeowner does not keep up the repayments due under the terms of the loan. In development finance the security that might be offered includes similar mortgage charges on land and buildings or equipment but it can also include a charge over the income to be generated by the project to which the lender will then have first claim. In that case the lender call usually appoint someone called a 'receiver' to manage the project whilst their debt is being repaid.</p>
Share capital	Funds provided by shareholders to companies in which they invest by way of subscription for new shares.
Unsecured	A loan that is not secured (see above)
VCT	See Venture Capital Trust
Venture Capital Trust	See Appendix 2