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FINANCING ENERGY CONSERVATION PROJECTS IN EGYPT
Concept Papers : Equity Fund, Bond Fund & Corporate Bonds

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The International Investment Advisor (TIIA)
Investment Banking & Privatization Specialists

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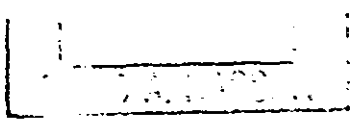

Introduction

This report comprises three concept papers for financing energy conservation projects in Egypt. The first is an Equity SPF or Special Purpose Fund, the second is a Bond SPF and the third is Corporate bonds.

For simplicity and ease of flow the concept papers will be addressed independently in a question and answer type format. Prior to that, the following provides an introduction to the concept.

How were the concepts originated?

Originally, the idea for an Equity and Bond SPF for financing energy conservation projects in Egypt was one of the main recommendations in the USAID funded Study (Contract No. 20821 - TC - 6) prepared for Bechtel Overseas by The International Investment Advisor (TIIA) titled, ***Financial Issues For Energy Savings Performance Contracting***.

The study, which assessed the financing needs and sources for energy conservation projects in Egypt indicated that there is more to be concerned about on the supply side than demand. Market statistics have it, that there is ample demand for energy conservation projects in the Egyptian market, but the nature of supply for term financing is discouraging. According to a USAID report, the market size for energy conservation in Egypt is estimated at around LE 3.6 billion (US$ 1.1 billion).

Today, the sources of energy conservation funding are limited to commercial loans, three donor funded schemes and self financing. Despite the current development in the Egyptian securities market, commercial loans from Egypt's 64 banks, amounting to LE 40.2 billion in 1996, still remain the main source of corporate financing for medium and long term needs.

Moreover, there is currently three donor funded schemes available from 18 participating banks namely, the EU - Private Sector Development Scheme (LE 90 million), GTZ/ KFW Program to Support Private Sector Industry and its Environmental Protection (LE 93 million), and the USAID - Private Sector Commodity Import Program (LE 680 million). The three schemes, totaling LE 863 million extend fixed rate term loans covering up to 100% of investment costs for periods ranging from 5 to 10 years. The lending rates on the pound for the EU and GTZ/ KFW schemes are 10.5 and 11.5% respectively, while that for the USAID and PAF schemes are based on the lending rates of each participating bank.

On the other hand, it is a fact that the Egyptian financial sector is developing at a fast pace due to the Government's economic reform and liberalization polices. One of the main positive results, is the resurrection of a thriving Capital Market which expanded by 185% in the nine months to December 1996 alone. Accompanying these developments 13 mutual funds emerged along with financial instruments such as T-Bills, Treasury Bonds, and corporate bonds.

The proposed SPFs intend to add a new dimension to project financing by providing the companies with innovative alternatives. Inherently specialized in energy conservation project finance, the SPFs would be equipped with the necessary skills, systems and structure required to meet the client's needs.

What is an Energy Conservation SPF?

The Special Purpose Fund (SPF) as the name implies, is basically a pool of Moneys directed to specific investments. To serve this purpose, the fund must have the necessary set up to include an investment policy, management policy and structure.

In this context, the proposed energy conservation SPFs would pool many energy conservation projects into one portfolio and provide the financing required for certain types of projects in-exchange for corporate securities. The securities could be either in the form of shares or corporate bonds depending on the type of fund and clients' needs. For the SPFs to achieve the required return on investment, the company must have a strong earnings growth potential.

What are the Key Success Factors (KSFs) for such funds?

For the SPFs to succeed, the following main KSFs ought to be in place:

1. ***Demand for Capital.*** The SPFs must have a list of pre-identified energy conservation projects within companies that are willing to finance these projects via the issuance of equity or bond securities. All the necessary pre-qualification studies to include energy audits, company diagnostic studies, etc.. should be drawn up to be used as the basis for identifying projects and companies in addition to raising required funds. The importance of this stage is vital to reduce market risk and elicit the interest of would be fund subscribers.

2. ***Availability of ESCOs.*** There must be an experienced multi-national ESCO in the market to give credibility to the system and bring in business. Although there aren't any ESCOs in Egypt, a multinational ESCO with a track record are ideal candidates for this position.

3. ***Sufficient Supply of Capital.*** Subscribers to the fund must have sufficient funds and confidence in the scheme to provide the necessary capital. The supply of capital in the financial system is abundant, with institutional investors and high net worth individuals armed with excess liquidity on the rampage for good investments.

4. ***Competent Fund Manager.*** The management must be knowledgeable in investments and energy efficiency financing in addition to, possessing the reputation to successfully manage such a fund. TIIA, with it's energy conservation and investment banking background and experience is an ideal Fund Manager.

5. ***Developed Capital Market.*** The market for divesting securities must be developed with enough liquidity to absorb the SPF's securities and ensure the return on investment promised to the fund subscribers. In this context, Egypt's Capital Market is thriving and there are no problems in exiting the market.

6. ***Credible Custodian.*** Any fund requires a custodian for the purpose of book keeping and marketability of the fund. It's credibility is a big plus for raising funds in the market place. Although the role of such a custodian, which is usually a bank is more apparent in open - ended funds, it is still important in closed - end funds. It is most probably going to be one of the leading commercial banks such as Egyptian American Bank, Misr International Bank and Cairo Barclays.

Not diminishing the importance of the mentioned factors, but the first is by far the most important. To push start the SPFs, a number of projects and companies, estimated to be at least 10, eligible for financing will have to be pre-identified by the ESCO and fund manager. It is expected that a percentage of this number will actually close a deal with the SPF. Post investing in the first batch of companies, the SPF would divest it's holdings in the secondary market after a period of time, estimated to be around 2 years, and reinvest in other eligible projects and companies. At this stage, the SPF would have had enough experience and publicity in the market to attract new candidates.

A summary of the structure of the Equity SPF, Bond SPF and Corporate Bonds is shown in the following matrix.

Energy Conservation
Concept & Structure - Matrix

	Equity SPF	Bond SPF	Corporate Bonds
Purpose in brief	The SPF participates in the equity financing portion of the capital required for energy conservation projects. For this purpose, it will acquire the new share issues of mainly unlisted companies, hold and divest them at the prevailing stock market price.	The SPF participates in the debt financing portion of the capital structure for energy conservation projects. For this purpose, the SPF would structure and purchase the corporate bonds in the primary market, hold and divest them in the secondary market.	The bonds cater for a market with debt requirements in-excess of the maximum Bond SPF application size. The team, comprised of an ESCO, investment banker, legal advisor and brokerage firm will assist the company in closing the transaction.
Stakeholders	• International ESCO with track record • TIIA as fund manager • Custodian Prime local Bank • Fund advisor & placing agent • Fund technical advisor • Project	• International ESCO with track record • TIIA as fund manager • Custodian Prime local Bank • Fund advisor & placing agent • Fund technical advisor • Project	• International ESCO with track record • TIIA as investment banking advisor • Brokerage firm • Legal advisor • CMA • Project
Legal Structure	Close -ended with a 7 year life	Close -ended with a 7 year life	CMA
Minimum amount/ Size	LE 50 million	LE 100 million	LE 20 million, averaging LE 50 million
Fund Objective	Growth Fund	Income Fund	Not Applicable
Potential Subscribers	Banks, insurance companies, investment companies & high net worth individuals.	Banks, insurance companies, investment companies & high net worth individuals.	Banks, insurance companies, investment companies & high net worth individuals.
Investment Incentive	"High" risk - "High" return	Low risk - Low return	Low risk - Low return
Financial instrument	Units of the Fund / Common Shares	Units of the Fund / Corporate Bonds	Corporate Bonds
Tax treatment of instrument	Dividends and capital gains are tax exempt	Capital gains are tax exempt while, coupons are tax exempt up to the CBE discount rate	Capital gains are tax exempt while, coupons are tax exempt up to the CBE discount rate

Characteristics of instruments	normal features of common shares	1. Bank guaranteed or un-securitized 2. Denominated in Egyptian pounds (LE) 3. Non - convertible to stock 4. Callable 5. Ceiling of LE 20 million, averaging LE 15 million 6. Redemption period up to 7 years 7. Variable and/ or fixed coupon payments 8. Fixed & regular payments	1. Bank guaranteed or un-securitized 2. Denominated in Egyptian pounds (LE) 3. Non - convertible to stock 4. Minimum size is LE 20 million 5. Redemption period up to 7 years 6. Variable and/ or fixed coupon payments 7. Fixed & regular payments
Eligibility Criteria	• Incorporated as a joint stock company • Consent to an IPO post capital increase • Profitable and creditworthy • Mainly unlisted companies • Significant energy cost savings project • Application between LE 5 - 10 million • Performance Guarantee contract from a large ESCO with a track record	• Incorporated as a joint stock company • Net worth should exceed LE 10 million • Issued capital should be fully paid • Favorable leverage position • Application between LE 10 - 20 million • Significant energy cost savings project • Performance Guarantee contract from a large ESCO with a track record	• Incorporated as a joint stock company • Listed • Net worth should exceed bond issue • Issued capital should be fully paid • Favorable leverage position • Significant energy cost savings project • Performance Guarantee contract from a large ESCO with a track record

Concept Paper One
The Energy Conservation Equity Fund (Equity SPF)

What is the Equity SPF Concept?

The idea, is that companies could approach the Equity SPF and get equity financing for an energy conservation project, provided that the SPF eligibility criteria are met. In other words, the SPF would hold a minority interest in the company's share capital in return for financing the requirements of the project.

As an investment policy, the fund will be committed to acquire the new share issue of a non - traded company (i.e. closed) that could either be listed or unlisted. The reason for that being the fund's expectation for the value of the share to increase post an initial public offering. The offering will be carried out by the Company after the fund acquires the shares within an estimated period of 6 months.

With regards to the investment decision making process, considerable weight will be given to projects that result in a significant reduction in energy costs and that allow the energy savings to be filtered to net income, so as to be reflected in the price appreciation of the shares.

The SPF is most likely to be a growth closed - end fund with an estimated life of seven years. Eleven of the thirteen funds in Egypt are open ended funds that invest in listed and publicly traded securities on the stock market. This allows for the trading of funds' certificates through the custodian bank at a price that is announced weekly. The price of the certificate is based on the number of outstanding certificates and the net asset value of the fund (NAV). The NAV is calculated based on the market value of traded securities, as quoted on the stock exchange, held by the fund taking into consideration other assets and liabilities. On the other hand, due to the nature of the investments the SPF will be undertaking in un-traded securities and the long term investment horizon, a closed - end fund would be more appropriate. Moreover, given the fact that the return to the certificate holder will be primarily from the capital appreciation over a period estimated to be two years, it could be argued that the longer the life of the fund, the higher its turnover. A period of seven years will allow for an approximate turnover of three times. Meanwhile, we believe that investors would not be willing to go for longer duration.

What are the funding eligibility criteria?

The funding eligibility criteria are investment guidelines, set by the SPF to determine the companies that are qualified for equity finance. Companies (private or public sector) aspiring equity financing for their energy conservation projects have to meet the following eligibility criteria :-

1. Consent to the financing of the project via an SPF equity participation.
2. Consent of the company to an IPO after the increase in capital.
3. The company value should be in the range of LE 50 - 100 million.
4. Have robust corporate earnings prospects and healthy solvency position.
5. Possess an energy audit report indicating significant energy cost savings and a performance guarantee contract with a credible ESCO.

What is the proposed size of the Equity SPF?

The proposed fund size should not be less than LE 50 million (around US$ 15 million). This will be better determined after the identification of preliminary candidates that meet the eligibility criteria. Compared to the market size for energy conservation, the expected fund size is very modest. The following should also be considered when deciding on the fund size:-

1. The size of one project should be between 10 and 20 percent of company value.
2. According to law 95, funds such as the SPF can invest up to 20% of the fund's size in one company.
3. The SPF is most likely to invest in companies valued at LE 50 - 100 million.

Who are the likely fund subscribers?

Having mentioned that the fund is a closed - end one with seven years life, the likely subscribers are expected to be institutional investors (commercial banks, insurance companies, investments companies, etc.) and high net worth individuals. TIIA has a list of potential subscribers that it intends to approach in stage 2 of this engagement (market sounding). As mentioned, a list of pre-identified companies should be compiled to market the SPF and raise the necessary funds. Accordingly, an ESCO such as Bechtel would have to identify at least 10 viable projects from day one.

Why would a Company want to issue shares to an energy conservation project?

Businesses have different financing needs. We, as consultants acknowledge the fact that when the SPF is put to the test, some companies will shy away from this SPF while others will embrace it as a life saver. In our opinion, the Equity SPF type funding has benefits that would appeal to eligible companies for the following reasons :-

- ***100% Project Financing.*** The company can receive up to 100% project financing, an important feature not available in the lending market. The financing will cover the cost of equipment, installation, engineering design, etc.

- ***No debt service burden.*** The company will not have any debt servicing requirements and thus no burden on cash flows. Most private sector companies do not like taking on loans for long periods of time. For them an equity participation token could be appealing. One other important point is the fact that, in some cases, companies might be operating at a high leverage ratio that no bank is willing to increase its lending to the company.

- ***No Cash layout.*** All acquisition related costs, mainly due diligence will be born by the SPF, the client does not make any cash outlay. All the company does is agree with the SPF on the value and number of shares to be issued in-exchange for cash.

- ***Credibility Booster.*** For a company going public, having the Equity SPF as a minority shareholder would give a positive signal to the market. In this context, the transaction would reflect the SPF's confidence in the company's earnings forecasts and solvency position.

- ***Limited dilution of ownership.*** The Company will issue new shares to be acquired by the SPF that are expected to represent between 10 and 20 percent of the share capital, thus, existing owners would still have control even after divesting a portion on the stock market in an IPO.

Which companies would be interested in this source of financing?

Capital expansions are typically met by a corresponding capital increase. Although slightly different, implementing an energy conservation project via a new share issue should not be treated any different. Both private and public sector companies that realize this analogy will most likely be receptive to and accept this type of financing. In our opinion, the target companies are those that identify with fund in as much as they need to go public and would see in the fund a vehicle to achieve their objectives.

At this point in time, we can only identify the most likely sectors. In the industrial sector, companies in the textiles, chemicals and food industries are good candidates. While, in the services sectors tourist villages, private sector hotels and hospitals are prime candidates.

How much return will the fund expect to make?

The fund expects the capital to be fully invested within 12 months from the operational date and realize returns to its investors not less than 30% p.a. starting at the end of the second year. This is based on the premise that the SPF will invest a significant portion of it's capital in un-listed securities prior going public and, that the average returns on Mutual Funds is 26% p.a.

How does the Equity SPF work?

To give a clearer picture of the process flow, a hypothetical example will be used to show the workings of the SPF.

Company Data		Project Data	
No. of shares	1,000,000	Project costs	LE 10,000,000
Price per share (LE)	100	Equity portion	LE 5,000,000
Company Value (LE)	100,000,000	Share issuance costs	LE 250,000
		Finance required	LE 5,250,000

One of the companies eligible for equity financing is XYZ Co. (the client). The company has a bankable LE 10 million Waste Heat Treatment project (the project) with a performance guarantee with a reputable ESCO like Bechtel. The project's equity portion of LE 5.0 million is required for financing. XYZ Co. is aware that if the application is approved, the share issuance costs, amounting to LE 250 thousand would be added to the project cost and exchanged for shares.

Internally, fund technical advisor such as DRTPC appraises the technical aspects of the project and approves it's technical viability. At the same time, the fund manager, TIIA for example evaluates the project economics and future corporate earnings potential, so as to ascertain the achievement of an acceptable return on investment for the fund. In the valuation, the company's shares are priced against various scenarios. At least one scenario will be based on the effect of the projected lower energy costs as opposed to not implementing the project. The acquisition price paid by the fund will be before the

implementation of the energy conservation project whereas, the IPO price would take into consideration the increase in value as a result of implementing the project. Other variables will also be addressed and measured when valuing the company shares. In this context, the price per share is assumed to be LE 100.

Once passed this hurdle, the fund manager then signs a Share Purchase contract with XYZ Co. In this contract, the Company agrees to issue 52,500 shares to the SPF in-exchange for LE 5.25 million. A custodian & book keeper bank such as Egyptian American Bank (EAB) is then given instructions by fund manager to release the agreed funds to the account of XYZ Co. and take custody of the shares.

When the price of shares appreciate, the fund manager divests the shares on the stock exchange, realizing a capital gain for the fund.

Are there any problems in divesting the shares on the Stock Exchange?

The simple answer is no. Egypt's Stock Exchange is vibrant and expanding with plenty of room for growth. So far, supply in the equity market has been driven by the continuos privatization of public sector companies. This trend, will inevitably change in the near future, as the private sector growth stocks enter the market in search of funds to finance capital expenditure.

The positive expectations, have led many prominent Equity Traders such as Nomura, Flemmings and ING Bearings to grant Egypt the statues of an attractive emerging economy. Lately, Egypt was included in the IFC world investible index while Standard & Poor awarded Egypt an investment grade rating to be on par with other emerging economies such as Greece and China.

Concept Paper 2.
The Energy Conservation Bond Fund or Bond SPF

What is the Bond SPF?

The idea of the Bond SPF is to participate in all or part of the debt financing portion of the project investment capital required. This is provided that the companies pre-identified by a large ESCO with a track record meet the SPF funding eligibility criteria.

The fund would pool many energy conservation projects into one portfolio and provide debt finance in the form of corporate bonds for companies with certain project types. As part of the investment policy, the fund would structure and prepare the debt instrument that meet the client's needs while providing the fund with an acceptable return on investment. The fund would purchase the bonds in the primary market and divest them at a later stage in the secondary market.

The SPF is most likely to be an income closed - end fund with an estimated life of seven years. Eleven of the thirteen funds in Egypt are open ended funds that invest in listed and publicly traded securities on the stock market. This allows for the trading of funds' certificates through the custodian bank at a price that is announced weekly. The price of the certificate is based on the number of outstanding certificates and the net asset value of the fund (NAV). The NAV is calculated based on the market value of traded securities, as quoted on the stock exchange, held by the fund taking into consideration other assets and liabilities. On the other hand, due to the nature of the investments the SPF will be undertaking in un-traded securities and the long term investment horizon, a closed - end fund would be more appropriate. Moreover, given the fact that the return to the certificate holder will be primarily from the capital appreciation over a period estimated to be two years, it could be argued that the longer the life of the fund, the higher its turnover. A period of seven years will allow for an approximate turnover of three times. Meanwhile, we believe that investors would not be willing to go for longer duration.

The bank, in case of a bond SPF would be the custodian and book keeper in addition to, managing the Sinking fund (which is optional). This fund is created to accumulate cash, paid in by the bond issuer, over the life of the bond to meet its redemption value.

What are the funding eligibility criteria?

Initially, the ESCO will pre-identify a number of companies that meet the funding eligibility criteria. When the SPF is up and running, the fund manager expects other qualified companies to approach the fund and seek financing. In either case, companies that are qualified for SPF funding should meet the following eligibility criteria :-

1. Must be listed joint stock companies for the returns on corporate bonds' to qualify for tax exemption up to the CBE discount rate.
2. Net Worth should exceed LE 10 million for two reasons. First, by law the size of the bond issue should not exceed a company's net worth. Secondly, at lower levels the minimum variable and fixed issuance costs might be high compared to the issue rendering this source of finance expensive.
3. By law, the issued capital should be fully paid.
4. Favorable leverage position.

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5. Have a viable project with significant cost savings.
6. Possess a Performance Guarantee from a reputable ESCO.

Why finance an energy conservation project with corporate bonds?

Corporate bonds, like medium to long term commercial loans are a long term liability, appearing on the borrower's balance sheet affecting the leverage position and profitability levels. Throughout the bond's life, the borrower makes coupon payments to bond holders while the principle is usually redeemed at maturity via a sinking fund. In Egypt, the main source of debt financing are commercial loans and to a minor extent corporate bonds while financial leasing is unavailable.

In the context of energy conservation project finance, corporate bonds offer many benefits that supersede conventional loans as in the following :-

- ***Lower debt servicing costs.*** Priced at a bench mark such as the average 3 month TB plus a spread in the range of, but not limited to, 1.0 - 2.0%, the coupon rate for a 5 year bond would be lower than the medium term lending rate priced at 1.0 - 3.0% above CBE discount rate. This, in addition to the fact that coupon rates are calculated on a simple interest rate basis and not compounded as is the case with commercial loans. Moreover, companies might have reached the pre-set leverage by its lenders which could be lower than that of the fund's eligibility criteria. This would allow the company to raise external finance through the fund so long as the banks' covenants permits that.

- ***100% Project Financing.*** The corporate bonds will cover 100% of the project costs, an important feature not available in the lending market which averages 50%. The financing will cover the cost of equipment, installation, engineering design, etc..

- ***Flexible Product Structures.*** To the best of it's abilities, the SPF will try to meet the customers debt financing needs. In doing so, a flexible stance on the product structures will be adopted to include various guarantees, payments into the sinking fund (optional), redemption periods and periods for coupon payments (i.e. quarterly, semi-annually or annually). This, in addition to the fixed and variable coupon rates offered to the clients.

- ***No need for collateral.*** One of the main disadvantages with commercial loans is that they require collateral and will not accept energy conservation equipment as collateral. The SPF, however will be in a position to offer bonds guaranteed by a bank and debentures (non-securtized bonds) to prime borrowers. Obviously, this would be appealing to a wide range of customers especially, to those who do not have sufficient collateral.

Who would be interested in this source of financing?

This SPF type funding would mainly appeal to large sized Blue chip companies and growth stock companies in the private sector. In the industrial sector, companies in the textiles, chemicals and food industries are good candidates. While, in the services sectors tourist villages, private sector hotels and hospitals are prime candidates.

Public sector companies operating under Law 203, could also tap the SPF for funding provided that they posses a bank guarantee covering the size of the issue. In this respect,

funding would be available for the highly leveraged public sector companies in the spinning and weaving sector for example.

What are the main features of the debt securities offered by the SPF?

The SPF intends to provide the financial instruments that best suite the client's needs subject to the company's financial position, type of guarantee and marketability of the issue.

To start with, the SPF intends to structure and market corporate bonds that have similar features to previous bond issues. The proposed terms and conditions for the bonds are as follows :-

- Type of Bond — Corporate bonds
- Size of issue — ceiling of LE 20 million, averaging 15
- coupon — probably fixed, maybe variable
- Redemption period — up to 7 years, averaging 5
- Guarantee — guaranteed by a prime bank or non - securtized

What is the proposed size of the Bond SPF?

The proposed fund size should be around LE 100 million (around US$ 30 million) based on the following:-

1. By law, the size of a bond issue should not exceed the company's Book Net Worth.
2. The lowest bond issue in the market is LE 10 million.
3. The SPF will allocate 10 - 20% of it's funds for each project in any one company.
4. The portfolio composition should not be less than 5 projects.

In this context, a LE 100 million SPF would have a portfolio of 5 to 10 companies ranging from LE 10 to 20 million each, averaging LE 15 million. Compared to the market size for energy conservation, the fund size will have a market share of less than 3.0%.

Who are the likely fund subscribers?

It is important to note, that interest on bonds are exempt from income tax up to the CBE's discount rate (at 12.75%), thus, having minor effect on fund's profitability. Moreover, certificate holders or investors in the fund are not liable for any tax payment on interest or capital appreciation. This, compared to other investment opportunities might be more appealing to certain type of investors that hold surplus funds and seek good & innovative investment opportunities. Fund subscribers will mainly be institutional investors (such as insurance companies, banks, investment companies, etc..) and to a less extent high net worth individuals.

How much return will the fund expect to make?

The fund expects the capital to be fully invested within 12 months from the operational date and realize around 3 month TB rate plus 1:0 to 2 percent on the pound. This is based on the premise that the fund will develop a portfolio of corporate bonds with various risk return. As already known, the fair price of a bond is determined by the future coupon payments discounted at a market determined discount rate that reflects the maturity and risk class. If the fund is expected to hold the bond for a period of 1 to 2

years before selling it on the secondary market, the bond value is anticipated to increase as a result of foreseen decline in discount rate. As such, the fund will realize a return in terms of coupon payments and capital appreciation.

In structuring the corporate bonds, the financial and business risks will be taken into consideration so as to be reflected in the required return (or discount rate). It is important to note, that the investor returns on the bonds will differ with the company's financial position and type of guarantee. In this context, corporate bonds with a bank guarantee, and strong financial position will have a relatively lower risk and return relationship when compared to an un-securtized bond.

How does the Bond SPF work?

To give a clearer picture of the process flow, a hypothetical example will be used to show the workings of the SPF.

Company Data		Project Data	
Book Value (LE million)	40	Project costs (LE million)	10.0
Interest coverage ratio	4.0 : 1	Debt portion (LE million)	10.0
Leverage ratio	0.2 : 1	Payback period (yrs)	3.0

ABC Co. (the client) has a bankable LE 10.0 million Co-generation project that was identified by a large ESCO with a track record Egypt. The company, would like the Bond SPF to finance 100% of the project costs via a corporate bond guaranteed by a prime bank having similar terms & conditions to those in the market.

The evaluation results prepared by the fund manager indicated that the ABC meets the SPF eligibility criteria. Amongst the results, the debt study indicated that the company is financially sound with strong growth prospects and a healthy leverage position. At the same time, the fund technical advisor like DRTPC endorsed the technical viability of the project.

Based on the project fundamentals (annual savings, capital structure, etc..) and subject to the available constraints (clients financing needs), the SPF prepares the bond structure that best maximizes both the client and fund's returns.

Once passed these hurdles, fund manager discuses with ABC the terms & conditions for the corporate bonds, payment system, sinking fund, etc. Once agreed, ABC obtains the bank guarantee from EAB (client's bank) and signs a Bond Purchase contract with the fund, for the sum of LE 10 million in exchange for a corporate bond issue of the same value. The bonds have the following features; non-callable, 3 month TB rate plus 1.5% paid semi-annually and redeemable in 5 years.

MIBank (the SPF custodian & book keeper) is then given instructions by fund manager to release the agreed funds to the account of ABC and take custody of the bonds. After a year, TIIA collects the coupon payments and divests the bonds either via a private placement or the Cairo Stock Exchange at a premium.

Concept Paper 3.
Corporate Bonds

What is the idea of this Concept Paper?

Basically, TIIA, as an investment banking advisor will assist in the implementation of a bond financed energy conservation project. In this respect, an international ESCO with a track record will identify a large company with a lucrative energy conservation project (such as co-gen.) and TIIA will structure the subject corporate bonds and together with the brokerage firm market the issue.

How does this differ from the Bond SPF?

In essence, this concept paper is designed to compliment and not compete with the Bond SPF. The Bond SPF, as shown in Concept Paper 2 will have a project allocation ceiling of 20% or LE 20 million per company while, the subject corporate bonds would address a market with debt requirements in-excess of this amount. For example, a large company requiring 100% debt finance for it's LE 40 million co-gen. project would not be eligible for 100% debt financing under the Bond SPF. In this context, the Bond SPF could structure and purchase bonds up to LE 20 million while the remaining LE 20 million will have to be arranged from the more expensive conventional loans market. Since this financing package is costly, the ESCO, instead would direct the company to TIIA (the financial advisor) to arrange 100% debt financing in the form of corporate bonds.

Why corporate bonds?

As mentioned the subject corporate bonds would appeal to companies that are not eligible for 100% debt funding under the Bond SPF. Having 100% of the project's debt financing portion totally financed by a bond issue is cheaper and less complicated than a structured financing package with various maturity dates and debt service payments.

Similar to the Bond SPF, the subject corporate bonds offer many benefits when compared to commercial loans, as shown in the following :-

- ***Availability of long term finance***. Although the average tenor for commercial loans extended by banks is 5 years, in practice most banks extend such loans on a selective basis. Usually this is tied to the creditworthiness of the customer and the availability of donor funded schemes. Corporate bonds, normally a financing tool for long term financing will fill the long term financing vacuum in the Egyptian market.

- ***Lower debt servicing costs***. 5 year corporate bonds in Egypt, priced at a maximum of 12.0% are cheaper than 5 year bank loans averaging 14.0%. This is because the bench mark for bonds (3 or 6 month TB rate averaging 9.0%) is lower than the bench mark for term loans (CBE discount rate at 12.75%). This, in addition to the fact that coupon rates are calculated on a simple interest rate basis and not compounded as is the case with commercial loans. Moreover, companies might have reached the pre-set leverage by its lenders which could be lower than that of

the fund's eligibility criteria. This would allow the company to raise external finance through the fund so long as the banks' covenants permits that.

- ***No need for asset collateral.*** One of the main disadvantages with commercial loans is that they require collateral and will not accept energy conservation equipment as collateral. Corporate bonds on the other hand could avoid this pitfall with a bank guaranteed bond or debentures (non-securtized bonds) to prime borrowers. Obviously, this would be appealing to a wide range of customers especially, to those who do not have sufficient collateral.

- ***Corporate bonds are highly desired.*** The market for bonds in Egypt is thin with only 3 corporate bond issues (two from the same company) and 8 from local banks. However, with the growing awareness of the importance of bonds in the portfolio composition for financial intermediaries in light of a thriving capital market, the demand for bonds is strong and growing. Their importance is further emphasized by the fact that by Law, coupon payments are exempt from taxation on the portion of interest below the CBE's discount rate. To be eligible, the company has to pass several requirements discussed in later in the paper.

- ***Project financing as opposed to Credit financing.*** In project financing, priority is given to the economic viability of the project and it's debt servicing capabilities while collateral is secondary. When lending on a credit finance basis however, banks cover their financial exposure by evaluating the client's creditworthiness, company debt servicing capabilities and type of asset security. In this context, corporate bonds conforms to project financing where the assessment of the project fundamentals are center stage and collateral, whether in the form of a bank guarantee or non - securtized (in case of a prime borrower) is secondary. In this case, the financier could extend up to 100% debt financing if the project financials allows, a feature not available in the credit lending market which averages 50%.

- ***Flexible debt features.*** Compared to the standard commercial loans, corporate bonds could be structured to include a variety of features in terms of collateral, payments into the sinking fund[1] (optional), redemption periods, coupon payment periods, and coupon rates (fixed verses variable rates).

What are the eligibility criteria?

The ESCO would identify companies with the following eligibility criteria:-

1. Listed and incorporated as a joint stock company (not necessarily traded) for the return on corporate bonds to qualify for the income tax exemption up to the CBE discount rate.
2. Net Worth should exceed LE 20 million. This is because, by law the size of the bond issue should not exceed a company's net worth and the objective of the subject corporate bonds is to serve the needs of clients with debt financing requirements that exceed LE 20 million.
3. By law, the issued capital should be fully paid.
4. Favorable leverage position.

[1] Sinking fund is used by the company to retire all or part of the security issue prior to it's maturity. This fund is operated by the bond's trustee who receives periodic payments from the company.

5. Have a viable project with significant cost savings.
6. Possess a Performance Guarantee from a reputable ESCO.

On the Demand Side, who would subscribe to these Securities?

In general, corporate bonds are an important portfolio composition for financial intermediaries because of the relatively low risk associated with such securities and tax advantages.

In the Egyptian context, corporate bonds share similar features and are believed to be term loans "packaged" as bonds. In this sense, they are all floating rate bonds, non-convertible to stock, callable, bank guaranteed and redemption period is 5 years. This, in addition to the coupon rates being exempt from income tax up to the CBE discount rate while interest on bank loans are taxable.

Accordingly, the interested parties are expected to be commercial banks, insurance companies, investment companies, institutional investors, international fund managers, mutual funds, portfolio management, etc.

On the Supply Side, who would issue the Corporate Bonds?

Mainly, large industrial companies with big projects such as co-gen. would be interested in this source of financing. As we see it, Blue Chip or Growth Stock sector companies such as those in the textiles, engineering, petroleum and chemicals sectors are good candidates.

We are of the opinion, that public sector companies operating under Law 203 and government owned enterprises account for a significant portion of the estimated LE 3.6 billion energy conservation market. This is mainly due to their long term presence in the industrial sector where a significant portion of their plant and machinery are running on outdated technology characterized by high energy consumption.

A good example for an ideal candidate is El Nasr Fertilizers and Chemicals Company (Semadco). The company, which produces nitrogen fertilizer is the second largest in it's sector. Audited 1995 financials indicate, that Semadco with sales of around LE 300 million has been growing by around 5% on average per year. Meanwhile, profitability performance as expressed by the gross profit margin (22%), return on sales (11%) and ROE (18%) has been strong. Although the company is highly leveraged as expressed by the long term liabilities to equity ratio of 3 : 1, the company has a healthy cash flow and a respectable interest coverage ratio of 25 : 1. As of 1995, fuel and power accounted for around 30% of sales and 38% of cost of goods sold.

Company Data	June 1995	Project Data	Nov. 1995
Sales (LE million)	300	Investment Cost (LE million)	82.7
ROS	11%	Equity portion (LE million)	25.4
ROE	18%	Debt portion (LE million)	57.3
Interest Coverage	25 : 1	Annual Savings (LE million)	15.8
Net Worth (LE million)	208	Payback Period (yrs.)	5.4
Total Assets (LE million)	844	ROE	39.6%
Leverage	3 : 1	Project IRR	16.3%

In November 1995, a feasibility study for a Co-gen. project in one of it's two plants was prepared by Egyptian Fertilizer Development Center. The study indicated that the project could save 18 MW of power and reduce production cost by LE 15.8 million per year. The project, with an investment totaling LE 82.7 million has an IRR of 16.3% and payback period of 5.4 years. While the ROE, based on project debt to equity ratio of 2.3 : 1 was 39.6% in the 5th year.

What are the main features of the debt securities to be offered?

As a financial advisor, TIIA will act in the best interests of the client in structuring and arranging the most cost effective debt financing package that meets the client's needs. However, debt securities are incredibly diverse having various risk/ return combinations depending amongst many, on the quality of the company's financials, size of issue, and type of guarantee (if any).

During the process flow TIIA, will prepare a market sounding report incorporating the views and opinions of selected financial intermediaries on the bond product features and marketability of these securities. This will be done on a case by case basis for each company identified by a large ESCO with track record.

Like the Bond SPF, the proposed generic terms and conditions for the subject corporate bonds are as follows :-

• Type of Bond	Corporate bonds
• Currency of issue	Egyptian pounds (LE)
• Size of issue	minimum LE 20 million averaging LE 50 million
• coupon	probably fixed, maybe variable
• Redemption period	up to 7 years, averaging 5
• Guarantee	guaranteed by a prime bank or non - securtized

Who are the main Stakeholders?

The following is a brief on main Stakeholders (see also the following diagram and table):-

- ***The client*** (the project) must be eligible and willing to finance the project with the a corporate bonds issue.
- ***An international ESCO with track record*** identifies company, provides ESCO services and performance guarantee.
- ***TIIA*** (the investment banking advisor) will perform the debt analysis, market sounding, structure the bonds, seek approvals from the Capital Markets Authority (CMA) and assist in the negotiations with the financiers.
- ***CMA*** (capital markets regulatory body) provides approval for the issuance of bonds.
- ***Underwriter*** (optional) underwrites or sells the subject bonds.
- ***Brokerage Firm*** to market and execute the transaction.

What is the process flow?

During the following process flow, TIIA will provide on going support to the financier (s) and client:-

1. ESCO identifies a company that meets the eligibility criteria set forth in this Paper.
2. ESCO prepares the Energy Savings Report.
3. ESCO provides Performance Guarantee.
4. TIIA prepares the financial model and Debt Study.
5. TIIA agrees with client on the financial structure of the corporate bonds.
6. TIIA conducts market sounding with financial intermediaries.
7. TIIA prepares prospectus.
8. TIIA interfaces with CMA to get approval for the bond issue.
9. TIIA and brokerage firm jointly market the bond issue.
10. Brokerage firm executes the transaction.

ANNEX A

Equity Fund

Energy Conservation Equity Fund

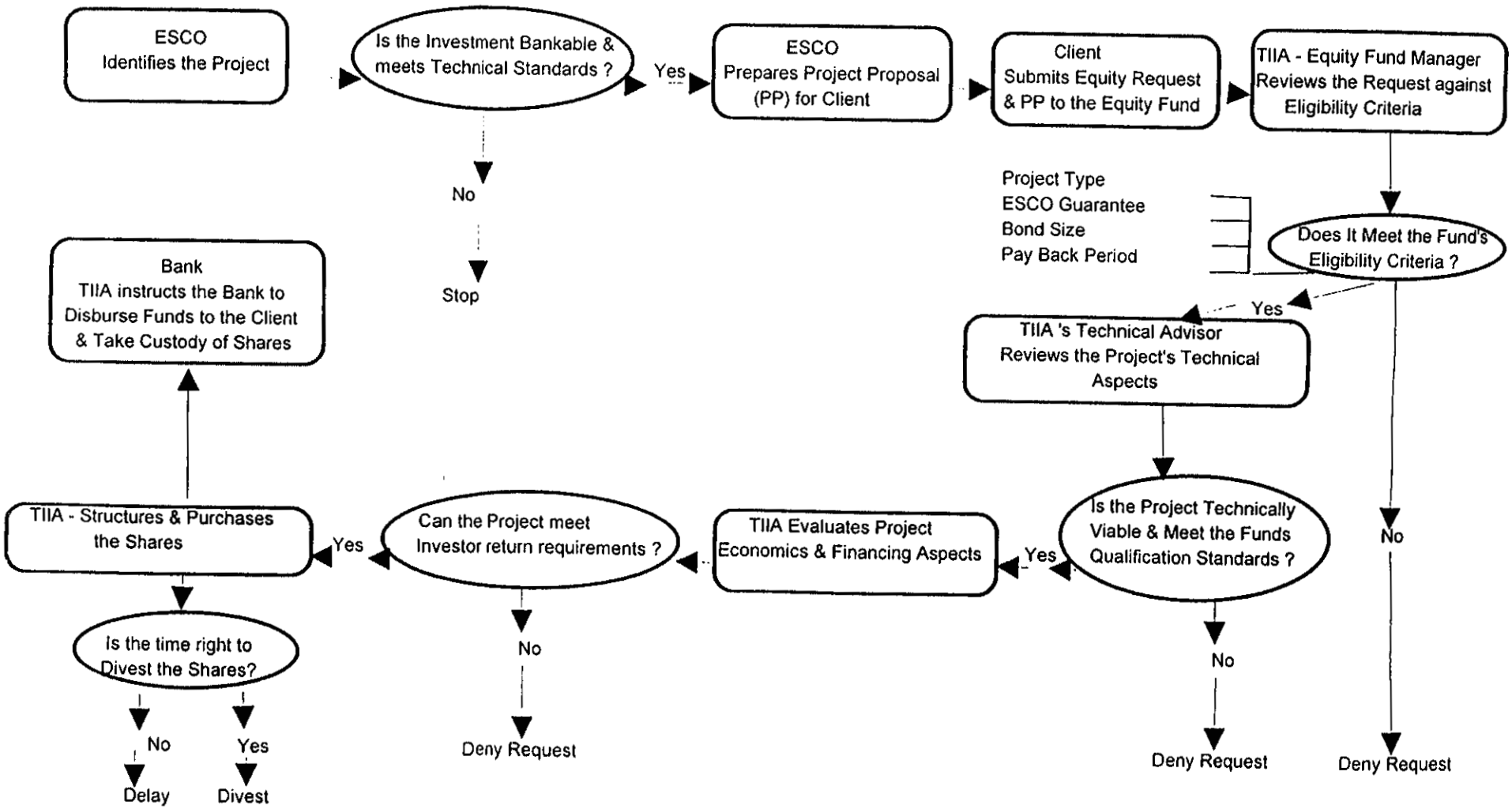
The Proposed Structure

Name :	to be determined
Legal Structure :	Closed - end revolving fund with a Life of 7 years.
Jurisdiction of incorporation :	Cairo, Egypt
Fund Size :	min. LE 50 million
Minimum Subscription :	LE 500 thousand
Fund Subscribers :	Institutional investors such as banks, insurance companies, investment companies and high net worth individuals
Fund Manager :	The International Investment Advisor - TIIA
Fund Administrator, Sponsor, & Custodian :	A Prime local Bank
Fund Advisor :	A Prime international investment bank such as the IFC
Technical Advisor :	A Prime local technical name
Fund Objective :	Growth Fund
Investment Policy :	This, special purpose fund participates in all or part of the equity financing portion of the capital required for energy conservation projects (provided that the project meets the funding eligibility criteria). The fund would pool many energy conservation projects into one portfolio and provide equity finance for certain types of projects. The minimum project application size is expected to be between LE 5 to 10 million. As part of the investment policy, the fund will be committed to acquire the new share issue of mainly un-listed companies. The fund will hold the company's shares for the duration of the project and when appropriate, divest it's holdings at the prevailing stock market price. As part of the investment decision making process, considerable weight will be given to projects that result in a significant reduction in energy costs and that allow the energy savings to be filtered to net income, so as to be reflected in the price appreciation of the shares.

Investment Management Policy :	The fund expects the capital to be fully invested within 12 months from the operational date. In this respect, it is paramount that the projects are pre-identified and included in the fund prospectus together with the relevant details such as energy audit, financial projections, etc.. prior to commencing with the fund.
Funding Eligibility Criteria :	1. Joint stock companies under Laws 159, 203 and 230 2. Consent to an IPO after the capital increase 3. The company is profitable and creditworthy 4. Listed company or unlisted to agree to be listed 5. Project with significant energy cost savings 6. Application size between LE 5 - 10 million 7. Performance Guarantee contract from an international ESCO with a track record
Characteristics of the Financial Instrument :	Common shares
Reported tax treatment of the Financial Instruments:	Under the Capital Market Law both, dividends and capital appreciation are tax exempt.

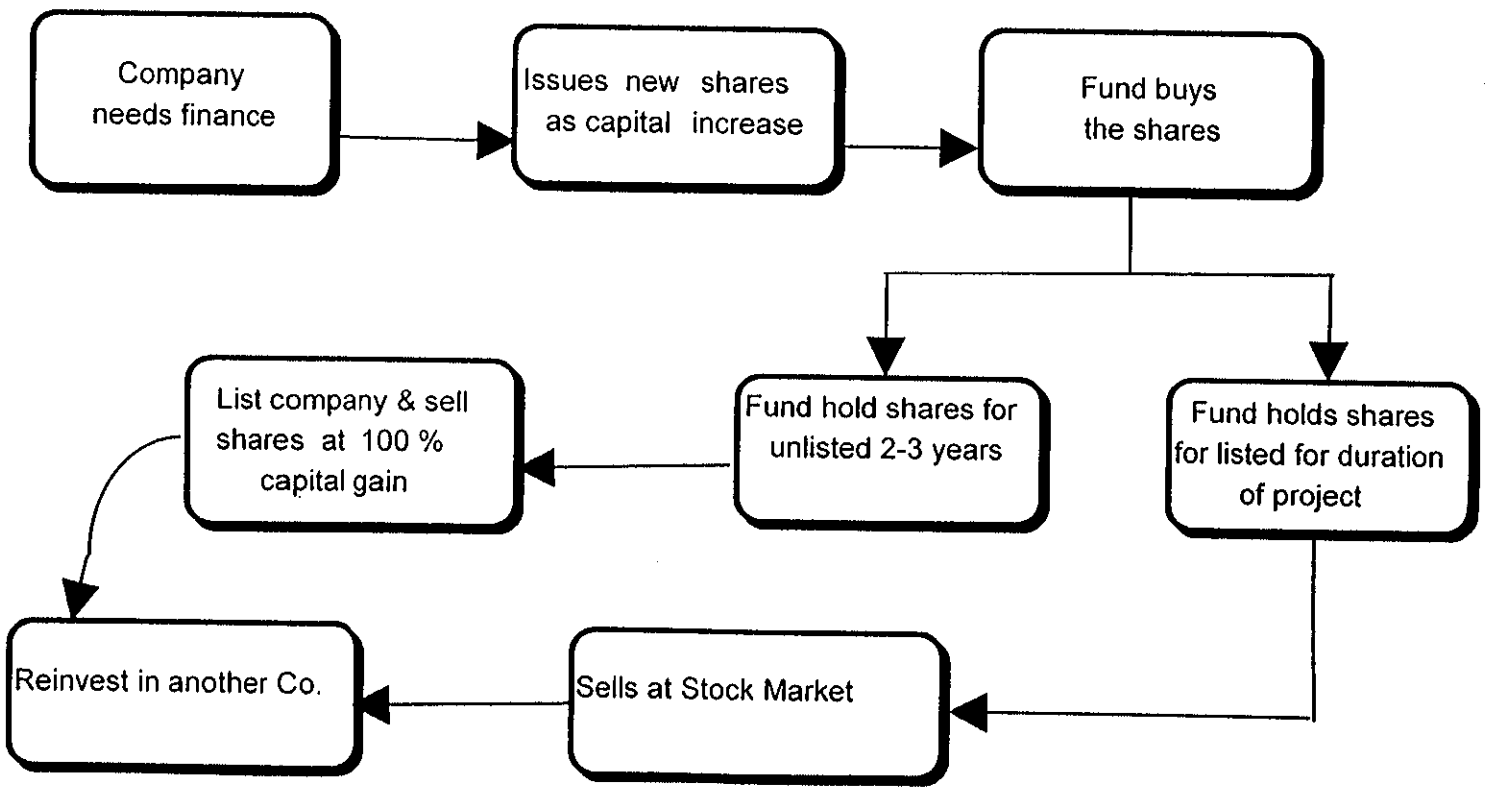
Special Purpose Equity Fund

Process Flow



Energy Conservation
Special Purpose Equity Fund

The Concept



The International Investment Advisor - TIIA
June 17th, 1997

Tasks & Responsibilities Matrix

Players	Tasks	Responsibilities
ESCO	• identify clients • conduct feasibility studies • provides Eng. design • provides const. mgmt • procures equipment • maintains equipment • recommends source of financing • prepares Project Proposal (PP) • guarantees performance	• project design & implementation • guarantee performance
Client	• negotiates the project's terms & conditions with ESCO and Fund • submits PP to Fund	• signs contract with ESCO • close financing arrangement with the Fund • pays the ESCO
Fund Manager - TIIA	• marketing the fund • manages the flow of funds • sets fund policies • reviews initial PP against eligibility criteria • negotiates with clients • reviews the project's financial aspects • evaluates profitability & creditworthiness of the company • interfaces with fund subscribers • coordinates the fund's advisory activities • administers fund	• maximize return to the fund's shareholders • manage the portfolio • approves the finan. viability of project • approves creditworthiness of client • arrange debt financing (if required) • approves project proposal • purchases the shares • divestiture of shares • all fund mgmt tasks
Fund Technical Advisor	• reviews the project's tech. aspects • interfaces with ESCO during implementation phase • recommends tech. modifications	• approves the technical viability of the project
Fund Advisor	• select sectors of the economy to invest • advise and assist in the placing of the issue	• assist in the placing of the issue • assist in the formulation of the investment policy

Bank (s)	• custodian of the shares • book keeping of account • disburses funds to clients & investors	• account administration

ANNEX B

Bond Fund

Energy Conservation Bond Fund
proposed structure

Name :	*to be determined*
Legal Structure :	close - ended revolving fund with a life of 7 years
Jurisdiction of incorporation :	Cairo, Egypt
Fund Size :	LE 100 million
Minimum Subscription :	LE one million
Fund Subscribers :	Institutional investors such as banks, insurance companies, investment companies and high net worth individuals
Fund Manager :	TIIA
Fund Sponsor, Sinking Fund, Trustee & Custodian :	A Prime local Bank
Fund Advisor & International Placing Agent:	A Prime international investment bank such as the IFC
Technical Advisor :	A Prime local technical name
Fund Objective :	Income Fund
Fund Main Purpose :	This, special purpose fund participates in all or part of the debt financing portion of the capital structure for energy conservation projects (provided that the project meets the funding eligibility criteria). The fund would pool many energy conservation projects into one portfolio and provide the required debt finance. The minimum and maximum project application size is LE 10 to 20 million, averaging LE 15 million. As part of the investment policy, the fund would structure and purchase the debt instrument that meets the client's needs while providing the fund with an acceptable return on investment. The fund would purchase the bonds in the primary market and divest them in the secondary market at the appropriate period.
Investment Management Policy :	The fund expects the capital to be fully invested in 5 to 10 companies within 12 months from the operational date, while realizing 3 month TB rate + around 2%.
Funding Eligibility Criteria :	1. Incorporated as a joint stock company operating under Laws' 159, 203 and 230 2. Net worth should exceed LE 10 million

3. Issued capital should be fully paid
4. Favorable leverage position
5. Project application size should not be less than LE 10 or more than LE 20 million
6. Have a viable project with significant cost savings
7. Possess a Performance Guarantee from a large ESCO with track record

Characteristics of Financial Instruments :

Corporate bonds (in LE) with following features :-

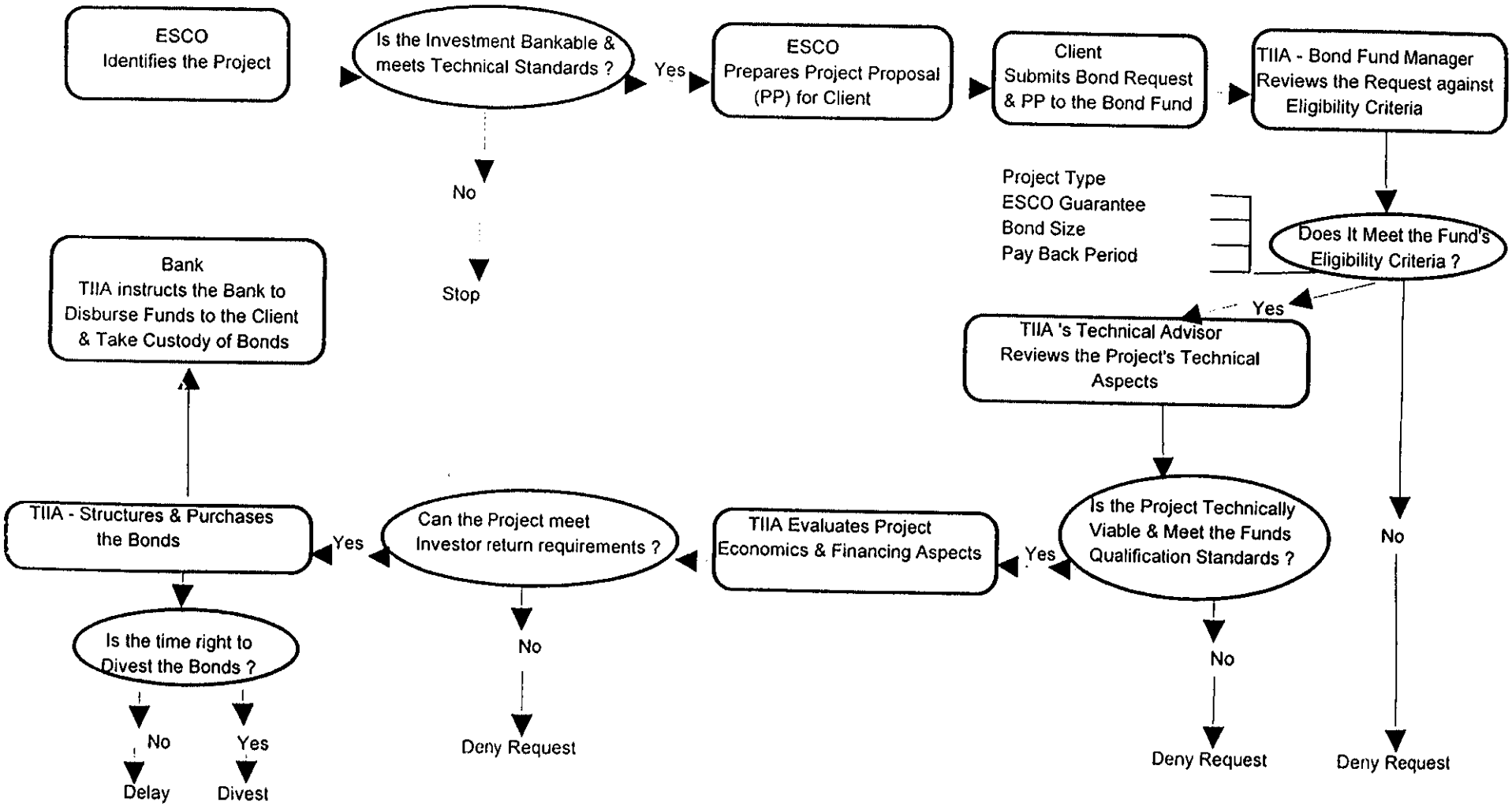
1. Bank guaranteed or un-securitized
2. Non - convertible to stock
3. Prepayment (Callable)
4. Ceiling of LE 20 million, averaging 15
5. Redemption period up to 7 years, averaging 5
6. Variable and/ or fixed coupon payments
7. Fixed and regular payments

Reported tax treatment of the Financial Instruments:

Under the Capital Market Law capital appreciation from bonds are tax exempt while the coupons are tax exempt up to the CBE discount rate only.

Special Purpose Bond Fund

Process Flow



Energy Conservation Bond Fund
Tasks & Responsibilities Matrix

Stackeholders	Tasks	Responsibilities
ESCO	• identify clients • conduct feasibility studies • provides Eng. design • provides const. mgmt • procures equipment • maintains equipment • recommends source of financing • prepares project proposal (PP) • guarantees performance	• project is bankable and economically feasible • abide by performance guarantee contract with the client
Fund Manager - TIIA	• manages the flow of funds • sets fund policies • negotiates with clients • interfaces with fund subscribers • marketing the fund • reviews the project's financial aspects • evaluates profitability & creditworthiness of the company • structures finan. instruments • administers fund	• approves project proposal • purchases the bonds • divestiture of bonds • approves project viability • all fund managerial tasks
Fund Technical Advisor	• reviews the project's tech. aspects	• approves tech. viability • reports all tech. recommends tech. to TIIA
Fund Advisor & International Placing Agent	• Initially, assist in marketing the Fund	• Marketing the fund (give additional credibility)
Bank (s)	• custodian • trustee • sinking fund (optional) • collect coupon payments • book keeping of account • redeem bonds • disburses funds to clients & investors	• account administration • sinking fund administration (optional)

Project (Client)	• negotiate terms & conditions with ESCO & SPF • submit PP to the Fund • make coupon payments • make regular payments • pay ESCO from savings	• sign contract with ESCO • financing arrangement with the Fund

ANNEX C

Corporate Bonds

Energy Conservation Corporate Bonds
proposed structure

The Concept :

The subject corporate bonds will cater for a market with debt requirements in-excess of the LE 20 million ceiling per company, to provided by the Bond SPF. In essence, the group to include; the ESCO, financial advisor, underwriter, legal advisor and brokerage firm will work together as team in issuing the bonds.

Stakeholders :

1. An international ESCO with a track record
2. TIIA as investment banking advisor
3. Legal Advisor
4. Brokerage firm
5. Underwriters (if needed)

Group Process Flow :

1. ESCO identifies eligible company
2. ESCO prepares the Energy Savings Report
3. ESCO provides Performance Guarantee
4. TIIA prepares the financial model and Debt Study
5. TIIA agrees with client on the structure of the bonds
6. TIIA fine tunes bond structure via market sounding
7. TIIA interfaces with CMA to get approval for the issue
8. TIIA prepares prospectus jointly markets it with brokerage firm
9. Underwriting may be needed in certain cases especially for public sector firms
10. Brokerage firm executes the transaction

Eligibility Criteria :

1. Listed and incorporated as a joint stock company
2. Net worth should exceed bond issue
3. Issued capital should be fully paid
4. Favorable leverage position
5. Have a large project with significant cost savings
6. Possess a Performance Guarantee from a large ESCO with track record

Bond Features for a proxy company such as Semadco:

1. Bond issue is LE 50 million
2. Nominal value is LE 1000
3. Redeemable in 5 years
4. Coupon payments is 3 month TB rate plus 1% payable on semi-annual installments
5. LE 12.5 million p.a. payable into the Sinking Fund, starting the 2nd year
6. Bank guaranteed
7. Non - convertible to stock
8. Prepayment (Callable)

Reported tax treatment of the Financial Instruments:

Under the Capital Market Law capital appreciation from bonds are tax exempt while the coupons are tax exempt up to the CBE discount rate only.

Corporate Bonds
Tasks & Responsibilities

Stakeholders	Tasks	Responsibilities
ESCO	• Prepare tech. study • Eng. design • Procure equipment • Install equipment • Maintain equipment • Provide performance guarantee	• Perform ESCO services
TIIA (Investment Banking Advisor)	• Evaluate project viability • Prepare Debt Study • Structure the bonds • Conduct market sounding • Get approvals for bond issuance from the CMA • Coordinate marketing with the brokerage firm	• Investment banking advisory aspects for the structure and issuance of the bonds
Legal Advisor	• Prepare Performance Contract • Review contracts with client's lawyers • Correspond with financier (s) lawyers • Assist in legal issues in the issuance of bonds	• All contractual requirements and obligations between ESCO and client
Brokerage firm	• Price the bond issue • Prepare bond prospectus • Promote the bond issue • Sell the issue	• Locate buyers for the bond issue • Execute the transaction
CMA (regulatory body)	• Confirms that bonds meet listing procedures	• Approve the issuance
Banks (Financiers)	• Bond Trustee • Custodian • Sinking fund	• Support services after issuance

Concept Paper 3
Main Stakeholders