

# O novo mercado da Eficiência Energética e seus aspectos financeiros

Vagas Limitadas

Data: 14/05/2002 Horário: 14:00 às 18:00 Local: BNDES Centro de Treinamento

## Tópicos

- \* Introdução ao mercado de Eficiência Energética
- \* Agentes (ESCOs, Bancos, Venture Capital Funds e Fundos de Aval, Empresas Certificadoras)
- \* Modelos de Contratação – suas Vantagens e Desvantagens
- \* Riscos de Projetos e sua Gestão
- \* Due Diligence – Fatores Financeiros na avaliação de projetos
- \* Verificação dos resultados

## Palestrante:



*Dra. Shirley J. Hansen*

**SHIRLEY J. HANSEN – Ph.D,**  
**CEO da Kiona International, presidente**  
**Comitê Executivo do Protocolo**  
**Internacional de Medição e Verificação.**  
**Consultora internacional em**  
**organização de ESCOs (empresas de**  
**conservação de energia), e modelos de**  
**contrato para financiamento de**  
**projetos de eficiência energética.**

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## Local do evento:

Centro de Treinamento do  
BNDES – Carioca  
Av. Rep. do Chile, 100 subsolo  
Rio de Janeiro – RJ

## Organização:

Ibmec Corporate – Centro de  
Estudos e Gestão em Energia

INEE – Instituto Nacional de  
Eficiência Energética

Apoio: BNDES

O Ibmec em conjunto com o INEE, promoverão no próximo dia 14/5, Seminário Internacional sob o tema “O novo mercado da Eficiência Energética e seus aspectos financeiros”, quando serão debatidos:

- o mercado emergente da atividade ligada a racionalização energética nas empresas, principalmente através de ESCOs (Empresas de Conservação de Energia);
- as fontes de financiamento disponíveis e os modelos de apoio financeiro que estão sendo formatados para esse novo segmento;
- Contrato de Performance; Mecanismos de Securitização; Fatores Importantes na Avaliação de Projetos de Conservação de Energia e Fatores Financeiros, dentre outros

O evento contará com a participação de **Alan Douglas Poole** (consultor do INEE), **Edison Tito Guimarães** (Cogerar e Datum) e **Wagner Andrade** (SupraGEAE).

# The Context for Energy Efficiency Financing in Brazil

**Alan Douglas Poole**

**INEE - National Institute for Energy Efficiency**

**Presentation at Seminar on**

**“O Mercado da Eficiência Energética e seus  
Aspectos Financeiros”**

**BNDES, Rio de Janeiro, May 14, 2002**



14/5/2002

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mercado da Eficiência Energética

## Brazil's Energy Matrix

- Brazil's energy supply and use has characteristics that make it unusual.
- **On the supply side:**
  - Electricity generation is dominated by hydro - 93% of 74 GW (including Itaipu)
  - Large use of biomass in industry
  - Large-scale use of alcohol to substitute gasoline in transport
  - The use of coal is minimal outside of the steel industry.
  - Natural gas use is small but growing rapidly



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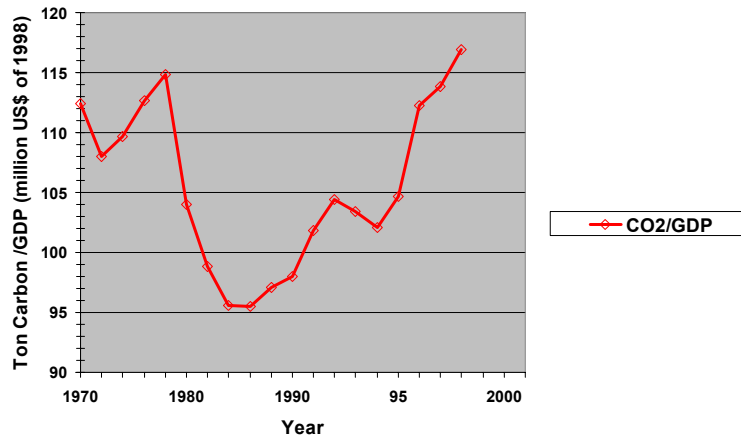
- **On the demand side:**
  - There is almost no space heating; while air conditioning grows rapidly
  - Water heating is limited mostly to showers – and most electrically heated.
- **Some consequences of structure of supply and demand:**
  - Fuel use is relatively small in the residential and commercial/public sectors
  - CO<sub>2</sub> emissions per unit of GDP are among the lowest of any large economy. However, they have been increasing rapidly 1990.

## Final Energy Consumption - 1998

Thousand tons oil equivalent – toe

Sector	Oil	NG	Coal	Biomass	Fuels	Electricity
Residential	6044	143	0	387	<b>6574</b>	6319
Commercial/Public	1129	129	0	144	<b>1402</b>	5481
Agriculture	4454	0	0	6	<b>4460</b>	925
Transport	41218	68	0	6568	<b>47854</b>	93
Industry	12238	2702	9614	20321	<b>44875</b>	10860
<b>Total</b>	<b>65083</b>	<b>3042</b>	<b>9614</b>	<b>27426</b>	<b>105165</b>	<b>23678</b>

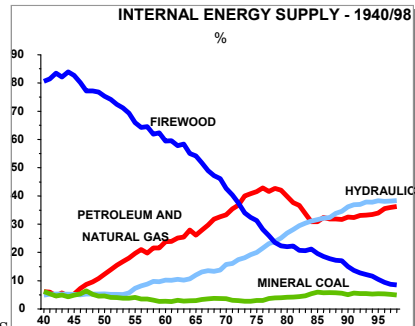
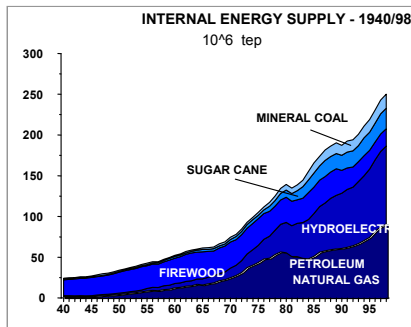
## Relation of Energy CO<sub>2</sub> Emissions to GDP



## Energy vs Economic Growth

- The overall energy intensity of Brazil's economy has increased constantly.
- Electricity consumption relative to GDP has increased steadily.
  - Since 1990 most electricity growth has been in the residential and commercial/public sectors.
- Since early 1990s fossil fuel consumption has accelerated.
  - Especially oil derivatives, mostly for transport.
  - Near future: most new electricity generation is natural gas/oil.
- Biomass use has been stable and will probably fall.
  - Both alcohol for transport and charcoal for pig iron are in absolute decline. Only serious new government initiatives can change this.
  - Use of pulp and sugarcane residues increasing in absolute terms.

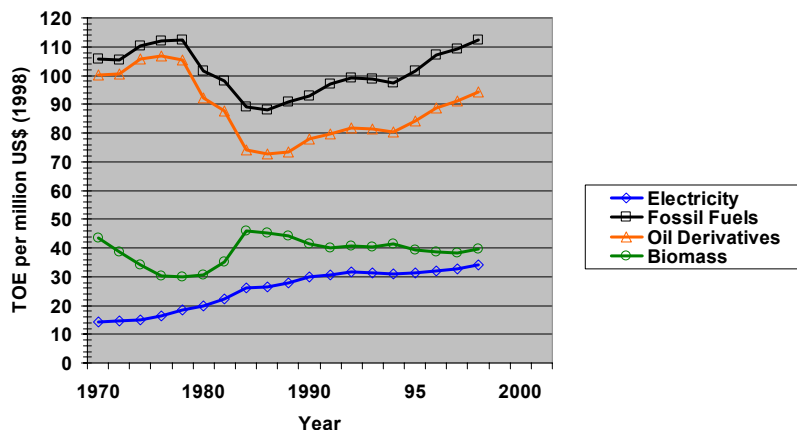
## Development of Energy Supply



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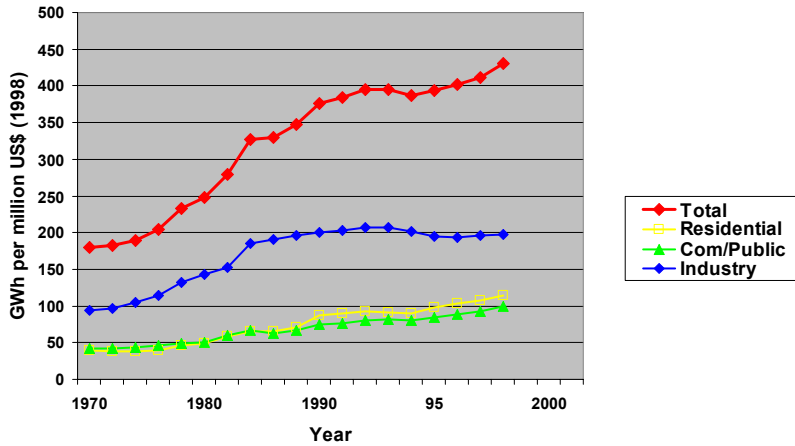
## Final Energy Consumption vs GDP



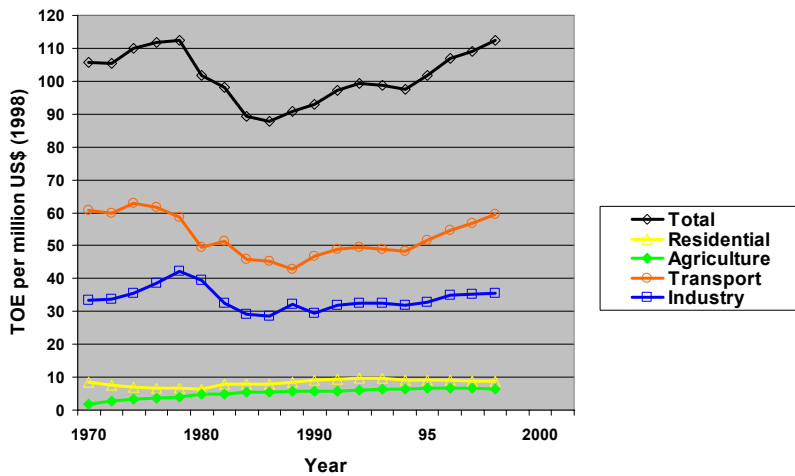
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## Electricity Consumption vs GDP



## Fossil Fuel Consumption vs GDP



## Energy Imports

- Brazil's dependence on imported oil has fallen dramatically
  - In 1980, >80% was imported. Today, less than 40% is imported
- Brazil imported ~60% of its coal in 1980, up to >80% today.
- Natural gas imports began recently with the beginning of operation of the pipeline from Bolivia - are set to expand rapidly.
- About 10% of electricity is imported (1/2 of Itaipú is Paraguay's). The imported component of electricity generation equipment has increased dramatically.



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## What is energy efficiency?

- Provide more energy services (heating, cooling, lighting, etc) per barrel of oil or MWh of electricity.
- Opportunities exist throughout the chain of transformations, from extraction of primary resource to the final consumer in his home
- Energy efficiency is **not**: the same as:
  - Energy rationing - which Brazil has just experienced - usually involves foregoing energy services (though some may be trivial to forego, as people discovered)
  - Reducing maximum demand. Important with electricity peak load. Projects reducing peak load often not associated with greater efficiency. In Brazil, more emphasis historically on peak load.



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## Why is energy efficiency interesting?

- Consumer benefits from lower costs of energy services. Efficiency upgrades often associated with:
  - (a) improved quality of product or service;
  - (b) reductions in environmental pollutants; eases compliance
- Important public benefits (“externalities”).
  - Shifts investment from energy supply (very capital intensive) to more employment intensive sectors of the economy.
  - Contributes to competitiveness of industry
  - Helps mitigate environmental pollutants, including GHG.
- In principle, politicians should love it, except not many opportunities for big ribbon-cutting ceremonies.

## Role of energy efficiency services

- Despite high economic returns from many energy efficiency measures, consumers often have difficulty identifying and implementing them. Barriers include:
  - Usually small part of costs - viewed as a “fixed” cost
  - Involves specialized knowledge, usually distant from core competence
- One man’s “barrier” can be another person’s market opportunity.
- EE service companies help consumers to “unlock” value from their waste - “*luxo do lixo*”.
- Main sectors of interest are medium & high voltage industrial and services consumers - except large energy intensive consumers who maintain their own process expertise.



## Status and characteristics of the market

- Growing at moderate pace ~30%/year.
- Sector volume still very small ~US\$ 25 million in mid-2001. Electricity crisis increased project flow.
- “Bottom-up” growth, little support so far from government programs.
- Energy efficiency service companies (ESCOs) are almost all small to medium-sized engineering companies.
- Typically small project with short simple paybacks (< 1 year), financed by internal resources of the project developer or client.
- Today mostly traditional fee-for-services contracts.



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## Energy efficiency services are in transition

- Objective is to develop a new kind of supply of services, creating essentially a new market with large growth potential.
- Central to this change is the use of performance contracts (to be much discussed in this seminar)
- Requires a set of innovations which exceeds capacity of any single firm to introduce in the market alone.
- ABESCO created in 1997 to coordinate class effort. Today more than 60 members (**Wagner**). Has a key role.
- Transition process is still incipient.
- Potential market could reach more than US\$ 250 million per year, the question is when.



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## Prospects for growth – positive factors

- Consumer awareness from crisis
- Significant electricity price increases in general;
  - Structural changes in prices also likely to improve market;
- Entry of natural gas offers opportunities for project developers
  - The conversion process helps open potential clients' doors; can often quickly identify other rationalization measures
  - Increased potential for distributed generation systems.
- Government policy statements since mid-2000 have finally begun to emphasize consolidating ESCO market
  - Proposals of Technical Committee of CGE as part of *Energia Brasil* program to recover from the crisis.
  - Resources from GEF to PROCEL target this area. Could help accelerate development in many ways (Chinese started 5 years ago, when Brazil began negotiations with GEF/World Bank)



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## Average Electricity Prices

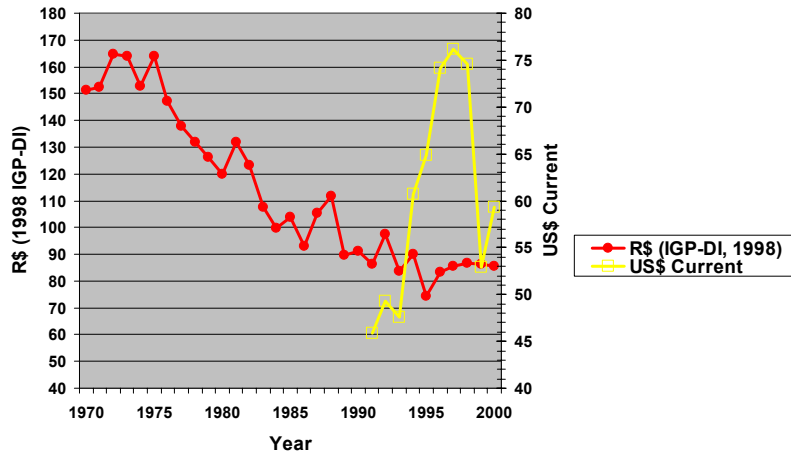
- Brazil saw a long fall in average electricity prices adjusted for inflation until 1993.
  - A reconstruction process then increased prices, but early in the *Real Plan* electricity prices were frozen.
  - Inflation-adjusted prices reached lowest annual level in 1995. However, in US\$ terms the price had increased.
  - Inflation-adjusted prices have since increased moderately. Since 1998, US\$ value declined.
- Prices should continue to rise substantially above inflation, principally due mostly to increase in costs of generation & transmission.
  - Price of bulk power in “initial contracts” with distributors is too low to justify almost any investment.



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## Average Annual Electricity Price



## Electricity Price Structure

- There are two big distortions in the **structure** of prices to consumers:
  - \* Large consumers pay an artificially low price (which is the main reason they were uninterested in being “free”).
  - \* For medium and high voltage consumers, the price of peak-hour electricity is 7-10 times the off-peak price. (the economic signal is to reduce peak-load demand, not increase energy efficiency).
- Political factors may lead to change in structure of regulated electricity prices.
  - Utilities can lose money selling off-peak power if consumer goes off peak - many did so as a consequence of the electricity crisis.
  - Residential consumers and low voltage commercial consumers already pay relatively high rates.
  - Note differentiation of “temporary surcharge” (7.9% vs 2.9%).

## Prospects for growth in energy services – inhibiting factors

- Almost complete lack of access to medium term debt.
- Limited access to risk capital
- Basic business instruments not fully developed and little disseminated
- Macroeconomic uncertainty can inhibit investments generally.
- Slow and uncertain government action
  - Institutional framework for EE policy predates energy sector reforms, no longer appropriate. Eletrobrás can only lend to utilities - restricts scope of other agents
  - Fuels and electricity efficiency treated almost entirely separately.
- Electric utilities are probably even less interested in EE today than they were before the crisis. Competition is still weak.



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## Some developments to watch for

- The ESCO market can expand rapidly. Among the accelerating factors would be:
  - Creation of a *Fundo de Aval* for ESCO projects.
  - Effective opening of government installations to ESCOs (as in North American FEMP & FBI).
  - Funds bringing risk capital and the possibility of aggregating projects.
  - Publicized demonstration projects
  - Reform of medium & high voltage electricity prices to better reflect costs
  - Entry of larger firms into the market
- Expansion of small-scale cogeneration market (usually <5 MW) will also be relevant.
  - Linking the two markets (very distinct in terms of financing) is an interesting business challenge.



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May 2002

# The Appeal of Performance Contracting

**Shirley J. Hansen, Ph.D.**  
**Kiona International**

Seminário “ O Mercado da Eficiência Energética e seus aspectos Financeiros”

Rio de Janeiro, 14 de maio de 2002

Centro de Treinamento do BNDES – subsolo

Promoção:

Ibmec Corporate – Centro de Estudos e Gestão em Energia  
INEE – Instituto Nacional de Eficiência Energética

## IBMEC Panel

May 2002

# The Appeal of Performance Contracting

Shirley J. Hansen, Ph.D.  
Kiona International

## The Appeal of Performance Contracting

**Energy efficiency is  
an investment; not  
an expense!**

Buildings and processes are an organization's  
assets; part of the financial portfolio.

Energy efficiency investments enhance that portfolio.

# The Appeal of Performance Contracting

Energy efficiency can help the economy, improve the environment and save finite resources.

*The question: If energy efficiency offers so many benefits, why isn't more happening?*

The biggest reason around the world is ...



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## The Appeal of Performance Contracting

### Performance Contracting is...

A contract with payments based on performance. Generally, determined by energy savings.

For the owner, it is an opportunity to redirect expenses into a revenue stream without front end capital costs.

## The Appeal of Performance Contracting

Performance Contracting has many



### **CUSTOMER ADVANTAGES**

Use **FUTURE** energy and operational savings **NOW**

Upgrade facilities without front-end capital cost

Cut operating costs; be more competitive

Improve comfort; productivity

## The Appeal of Performance Contracting

Performance Contracting has many



### **CUSTOMER ADVANTAGES**

Capture a positive cash flow

Gain opportunity value of money

Get guaranteed results

Shed risks

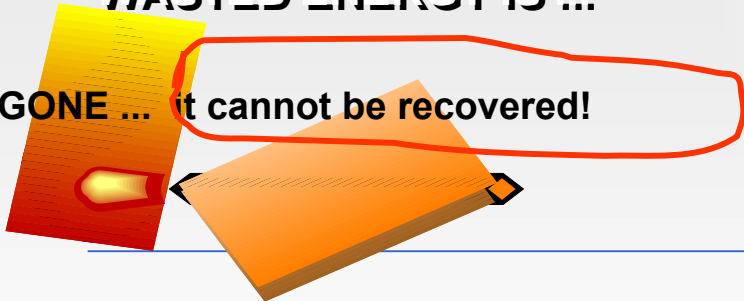
***And do it all with money from wasted energy***



## The Cost of Delay

**WASTED ENERGY IS ...**

**GONE ... it cannot be recovered!**



**Brazil's energy bill x 25%. . . ? ? ?**

***Can you visualize a pile of  
money ... just burning***

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## The Cost of Delay (COD)

**Calculate it!**



**COD = Potential Savings – Implementation Costs<sub>n</sub>**

**2 million – 500,000/5 years = 1.9m/yr**

***COD = The high cost of doing nothing!***

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## The Appeal of Performance Contracting

### The Business Perspective

- Serve existing customers better
- Sell to customers that have “no money”
- Increase business with little incremental cost
- Hold down cost of power
- Increase jobs

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## The Appeal of Performance Contracting

### The Business Perspective

- Make more money; savings and services
- Demonstrate confidence in product and services
- Meet environmental responsibilities

★ But ... it does require managing risks and a complex sale

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# The Appeal of Performance Contracting

**Kiona International is  
NOT an ESCO**

## We provide consultation in:

- Market assessments
- Business plan/ESCO development
- Value creation and services
- Contract development
- Identification of PC barriers...& resolutions
- Partnership formation
- PC project brokering

## We provide training in:

- ESCO development
- Customer awareness, ESCO selection
- Risk management
- Marketing and sales
- Energy efficiency financing

## To Summarize:

**The Appeal of  
Performance Contracting is ...**

**⇒ Expertise**

**⇒ Risk acceptance**

**⇒ MONEY!**

**PERFORMANCE CONTRACTING**

# **DOMINANT FINANCIAL MODELS**

**IBMEC**

**April 2002**

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# PERFORMANCE CONTRACTING

## DOMINANT FINANCIAL MODELS

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## DOMINANT FINANCIAL MODELS



Business solutions

Chauffage

Integrated solutions

Supply efficiencies

Comprehensive demand efficiencies

Single measure (paid from savings)



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# DOMINANT FINANCIAL MODELS

Basic to all options have been two  
dominant financial models in the world.

## GUARANTEED SAVINGS

- \* level of ENERGY saved is guaranteed
- \* value of energy saved is guaranteed to meet debt service obligation down to a floor price
- \* owner carries credit risk
- \* tax-exempt institutions can use status for much lower interest rates

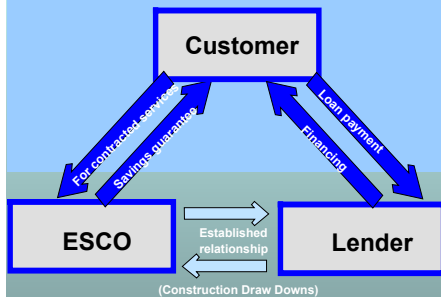
## SHARED SAVINGS

- \* shares % of energy COST savings
- \* usually off balance sheet
- \* equipment may be leased
- \* ESCO typically carries financing; so ESCO has credit and performance risk
- \* customer has more payment exposure

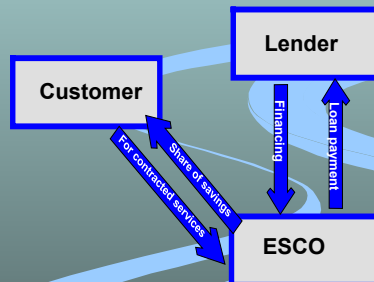
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# DOMINANT FINANCIAL MODELS

## CASH FLOW: GUARANTEED SAVINGS

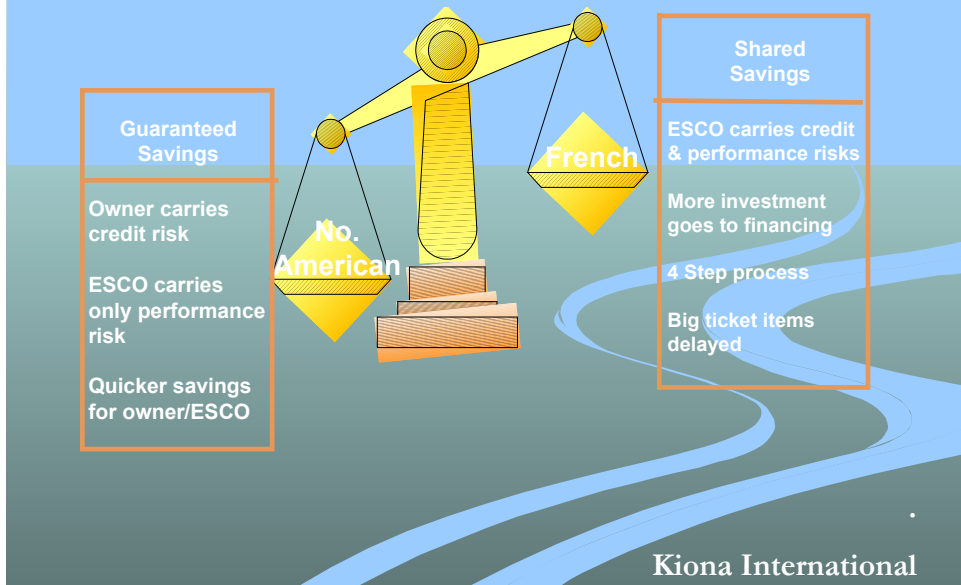


## CASH FLOW: TYPICAL SHARED SAVINGS

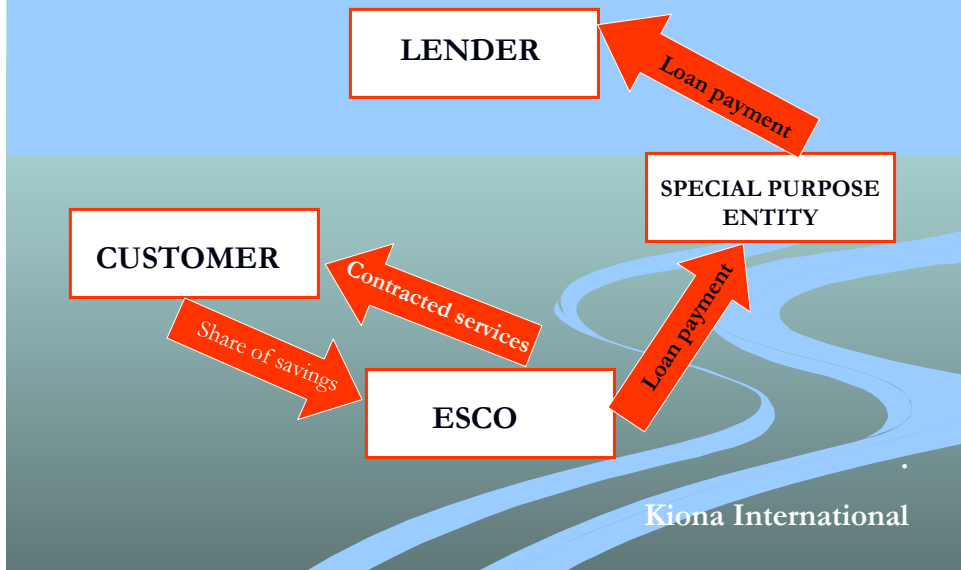


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## DOMINANT FINANCIAL MODELS



## DOMINANT FINANCIAL MODELS



# DOMINANT FINANCIAL MODELS

## Adapting Models to Brazil ... Questions to Consider

- ☐ Will one model do the job, or is greater flexibility an advantage?
- ☐ Who can/should carry the credit risk?
- ☐ How stable are energy prices?
- ☐ What model would be most attractive to financiers?  
Customers?
- ☐ Are any ESCOs big enough to carry financing on multiple projects?

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# MANAGING RISKS

## Through the Financial Structure

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# MANAGING RISKS

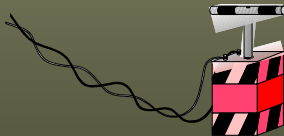
Through the Financial Structure

**Mastering the risks**

**Major ESCO risks**

**Mitigating strategies**

**Using the financial structure to manage risks**

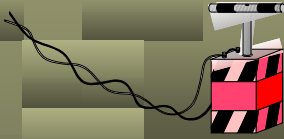


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# MANAGING RISKS

Through the Financial Structure

**How do we gauge risks and manage them?**



Identify

Evaluate

Accept/Reject

Manage through

- reduction
- substitution
- assignment

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# MANAGING RISKS

Through the Financial Structure

**Major ESCO Risks**

ESCO Management Risks

Customer Pre-qualification

Audit quality

Development/implementation time

Contract/negotiations

Project Specific Risks

Unanticipated customer developments

Implementation time

Technical surprises

Project management

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# MANAGING RISKS

Through the Financial Structure

## Major Risk Management "Tools"

- ★ Communications
- ★ Contract language
- ★ Project Management (Quality Assurance)
- ★ M&V
- ★ Investment Grade Audits

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# MANAGING RISKS

Through the Financial Structure

**We all make communications mistakes.**



"This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us."

--Western Union, 1876

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# MANAGING RISKS

Through the Financial Structure

## Investment Grade Audit

The traditional audit plus ...

Not a "snap shot" but *over time...*

How do you weigh the people factor?

How do you assign paybacks to measures?

**THE ULTIMATE TEST:**

**Predictive consistency ... 99-110%**

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# MANAGING RISKS

Through the Financial Structure

Reduce technical unknowns ...

provide only equipment and services with  
a track record

**But we all make mistakes!!**

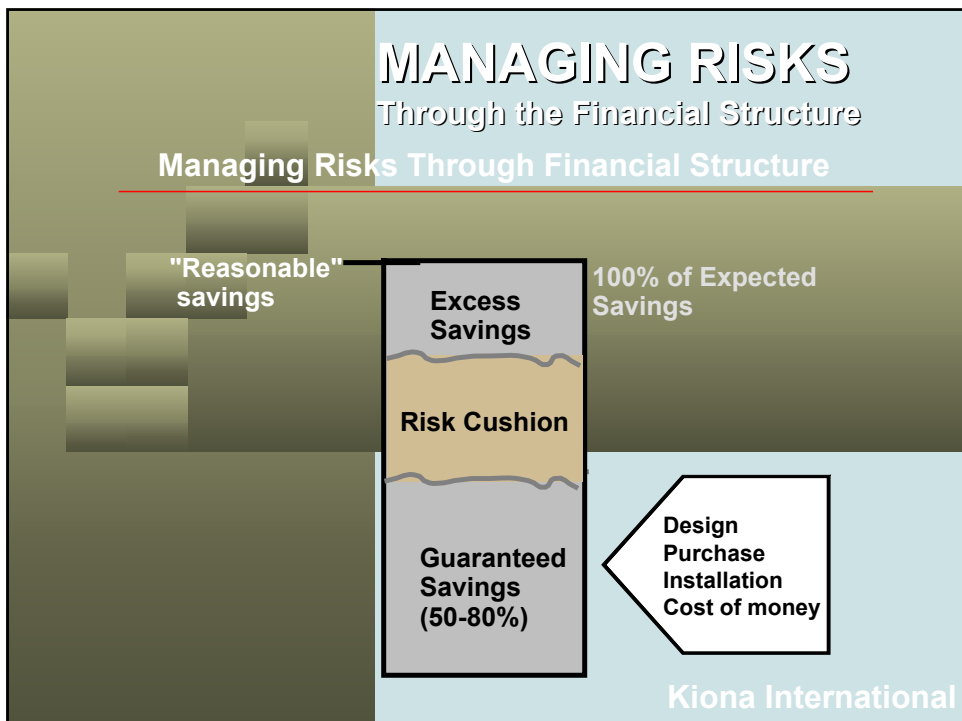
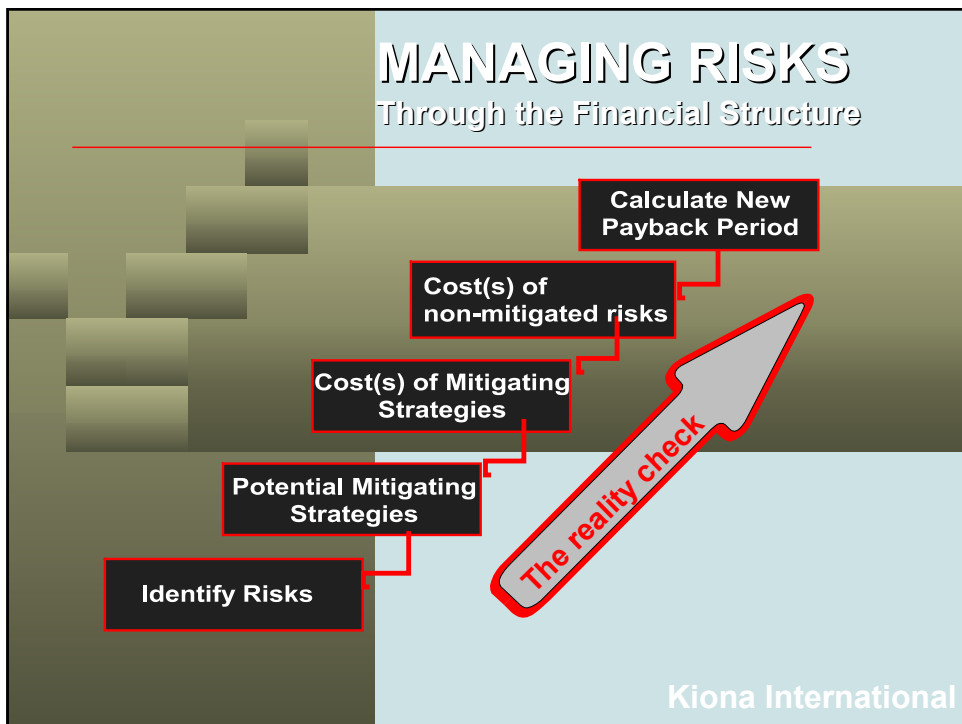
"I think there is a world market  
for maybe five computers."

-- Thomas Watson,  
Chairman, IBM, 1943



"640 K ought to be  
enough for anybody."

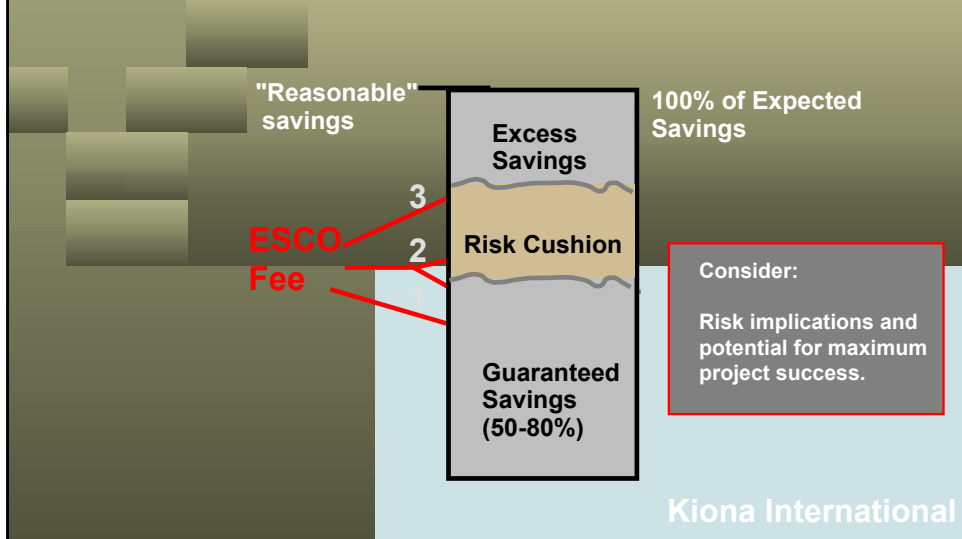
-- Bill Gates, 1981



# MANAGING RISKS

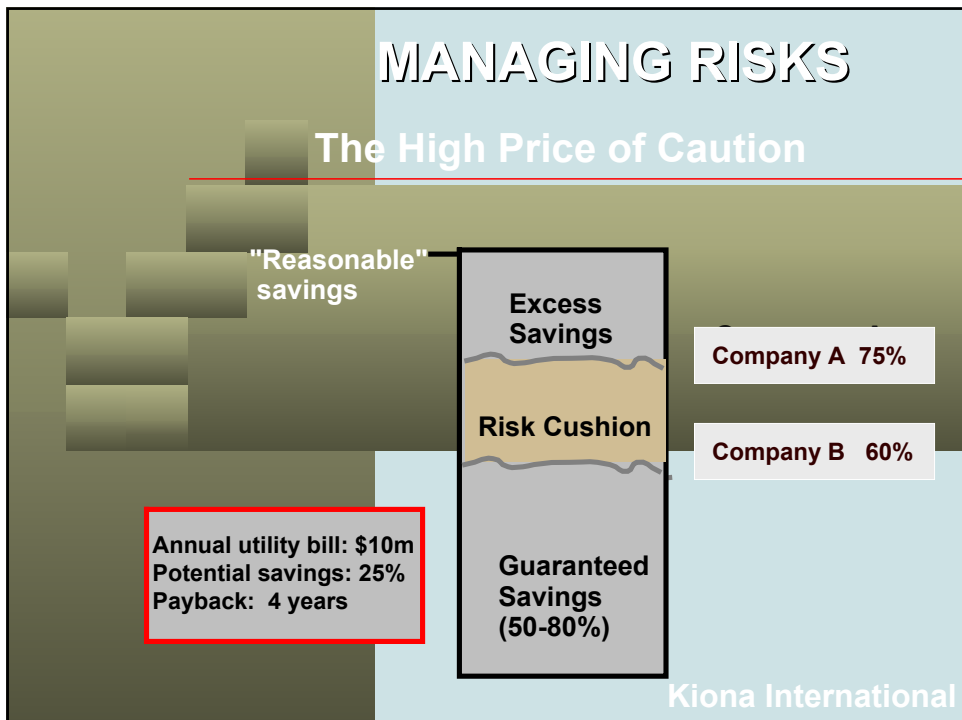
Through the Financial Structure

## ESCO Fee Placement



# MANAGING RISKS

## The High Price of Caution



# **FINANCIAL DUE DILIGENCE**

## **for Energy Efficiency Projects**

**Types of financing dictate focus of analysis**

**Financing offers a way to assess project fundamentals:**

- risks, mitigation costs
- cost-effectiveness of specific aspects
- as a business proposition

**Financier's due diligence offers both the owner and the ESCO safeguards**



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# FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

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# FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

## TYPES OF FINANCING MECHANISMS AND RISK EXPOSURE

What are the risks?

How are they controlled?

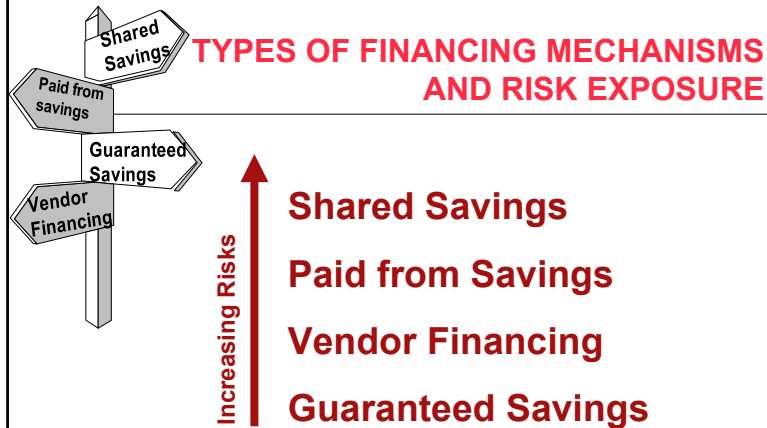
Who has responsibility for controlling them?

How do they vary by financing mechanism?



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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects



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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

### SHARED SAVINGS DISADVANTAGES

**Least opportunity for ESCO industry to grow**

Under shared savings – to stay alive – must:

- Be a branch of a big company
- Settle for short paybacks
- Sell the paper
- Have a parallel business

**Creates greater risk exposure for the customer  
unless contract limits spell out limitations**

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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

### CRITICAL FACTORS

<b>Technical</b>	Predictive consistency, Comprehensiveness Quality of the Audit
<b>Financial</b>	Creditworthiness of customer, ESCO Measure to be implemented
<b>Management</b>	Track record on time & cost Energy supply cost dependency
<b>Legal</b>	Contract protects investor's interests Contract is manageable



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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

### CRITICAL CUSTOMER INFORMATION

- ? What do you need to know?
- ? What does the ESCO need to know to manage its risks?
- ? How do you determine if the ESCO has secured the necessary information?



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## **FINANCIAL DUE DILIGENCE** for Energy Efficiency Projects

### **CUSTOMER PRE-QUALIFICATION**

**Organizational stability**

**Business prospects – supply; market**

**Creditworthiness**

**Credit history**

**Level of debt**

**Project opportunity; equipment needs**



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## **FINANCIAL DUE DILIGENCE** for Energy Efficiency Projects

### **KEY EVALUATION ISSUES**

#### **The ESCO**

What do we look for beyond the usual credit check?

- what else has the company done? Is it doing?
- what is its history in performance contracting?  
In energy engineering/financing?
- how do they manage their risks?
- how many projects do they have? In similar institutions?

#### **The Project**

What are they key project concerns?

How do you judge them?

What criteria do you establish for a go/no go decision?



## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

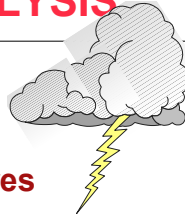
### PROJECT ANALYSIS

#### DIGGING DEEPER

Quality of the measures

Project management

Measurement and verification



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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

### MEASUREMENT AND VERIFICATION

- ➡ Investment accountability
- ➡ Create certainty out of uncertainty
- ➡ Savings actually occurred
- ➡ Savings are attributed to responsible party
- ➡ ESCO capabilities



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**INFORMATION FINANCIERS NEED  
For Today's Projects**

Project  
Financing

Lease  
Financing

A. New Projects

ESCO

- History
- Experience
- Years in operation
- Number of employees
- Number of offices
- Structure (S Corp, LLC, etc.)
- Financials – Audited, Compiled, Internal
- Type of business (lighting, drives, ESCo, contractor, etc.)

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

Host

- Credit rating
- Financials – Annual report, 10K, 10Qs
- Description of host facility
  - % of total revenues, assets, profits
  - What does it do
  - Capital expenditures over past few years
  - Leased or owned
  - Term of lease/copy of lease

✓  
✓  
✓

✓  
✓  
✓

Project Description

- Term
- Technology
- M&V methodology

✓  
✓  
✓

✓  
✓

ESA

- Term
- Termination Provisions
- Default Provisions
- Liquidated Damages
- O&M Responsibilities
- Insurance Responsibilities
- Asset ownership

✓  
✓  
✓  
✓  
✓  
✓  
✓



## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

### MEASUREMENT AND VERIFICATION



It's always cost vs. accuracy

Determinates are:

- ★project size
- ★instrumentation
- ★usage patterns
- ★measures selected
- ★savings documentation needed
- ★whether payments are related to savings



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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

### Guidance Available:

~~NEMVP~~ ~~BMVP~~ IPMVP<sub>2000</sub>

To obtain the IPMVP:

- As a book call (800) DOE-EREC
- Fax request with name, address & phone number to EREC at (703) 893-0400
- Via E-mail EREC at [doe.erec@nciinc.com](mailto:doe.erec@nciinc.com)
- Via world wide web [www.ipmvp.org](http://www.ipmvp.org)

*Alan Poole*



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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

### M&V GUIDELINES FOR INVESTORS

Determine if M&V plan will give you the information you need

Judge whether the M&V plan will best serve the project

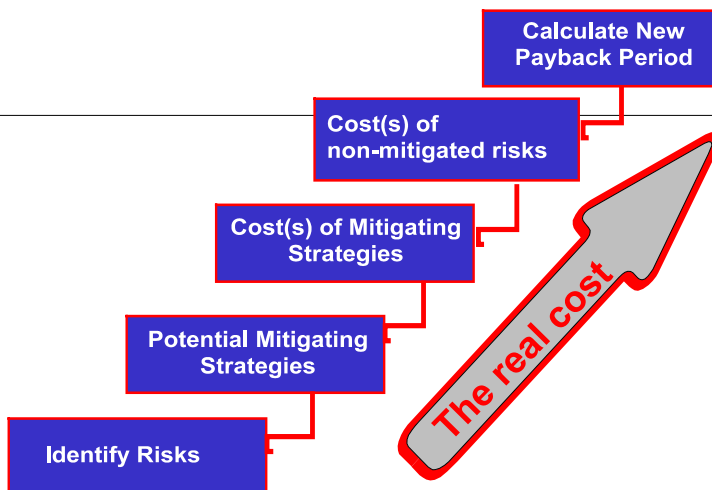
Be sure both parties understand and agree to the plan

Recognize that M&V is cost vs. accuracy; and be sure the cost is no greater than the project can afford/justify



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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects



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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

"Reasonable  
savings"

guarantee 50-80%

Excess  
Savings

Risk Cushion

Guaranteed  
Savings  
(50-80%)

100% of  
Expected  
Savings

Design  
Purchase  
Installation  
Cost of money



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## FINANCIAL DUE DILIGENCE for Energy Efficiency Projects

Both the customer and the ESCO need the  
financier's due diligence.

It is the best way to determine if the project  
is economically viable.

*Thank you for the opportunity to  
share these thoughts with you  
today.*

*Shirley*



maio 2002 / Rio de janeiro

## Fundo de Investimento em Projetos de Eficiência Energética

**Wagner Andrade – SUPRA GEAE**

**wagner@suprageae.com.br**

**(11)3078-8133**

Ibmec/Inee

Wagner Andrade / Suprageae

1

## A Relevância da Questão Financeira

*implica em buscar*

## Mecanismos de Financiamento da Atividade

Ibmec/Inee

Wagner Andrade / Suprageae

2

# Características Financeiras do Negócio “Eficientização”

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- Fluxo de Recebíveis
- Riscos de Desempenho e Crédito
- Condição de Avaliação, Medição e Verificação – Operação/Participantes

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As características do negócio “eficientização” permitem a formatação de ativos financeiros com características de renda variável

# Tipificação dos Ativos Financeiros

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- Participação – Operação de efficientização em estágio de projeto
- Recebível – Operação de efficientização realizada

## Objetivo Econômico-Financeiro do Fundo de Investimentos em Projetos de Eficiência Energética

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Possibilitar o desenvolvimento de ações de eficiência energética que apresentem características de viabilidade econômico-financeira através da captação pulverizada de recursos viabilizando a ampliação da atividade das ESCOs capitalizando projetos e diminuindo exposição financeira

## Oportunidades de Investimento do Fundo

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Aquisição de quotas/ações de participação em SPE-Sociedades de Propósito Específico constituídas para abrigar projeto específico ou conjunto de projetos que apresentem afinidade comparativa

## Mercado da Eficiência Energética

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A clientela abrange os setores público e privado sendo os negócios originados por programas compulsórios, ou por iniciativas privadas.

Exemplos de setores alvo de efficientização: Iluminação Pública, Edificações, Saneamento Básico, Metalúrgico entre outros.

## O Negócio Eficiência Energética

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O PROCEL estima potencial de economia de energia elétrica da ordem 8,3TWh até 2003 o que evitaria investimentos da ordem de R\$6 bilhões de reais estimando-se um mercado de eficientização da ordem de R\$1 bilhão de reais anuais.

O Banco Mundial em conjunto com a UNEP e PROCEL estão desenvolvendo projeto para a promoção de empresas voltadas a eficientização.

Ibmec/Inee

Wagner Andrade / Suprageae

9

## O Negócio Eficiência Energética

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A taxa de retorno média de investimento em projetos tipicamente de racionalização pode variar entre 50% a 200% aa .

A remuneração origina-se na economia obtida a partir das medidas contidas no projeto de racionalização.

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## Características do Fundo de Investimento

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Fundo de quotas/ações constituído sob forma de condomínio fechado destinado à aplicação de recursos por investidores qualificados em empresas emergentes cujo negócio principal seja: prestação de serviços de racionalização do uso de energéticos.

## Características do Fundo de Investimento

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O fundo terá períodos de distribuição, capitalização e maturação.

Os investidores assinarão “Instrumento de Compromisso de Subscrição” constando obrigações de subscrição – valor e prazo das integralizações. O período de capitalização poderá ser de até 2 (dois) anos.

## Características do Fundo de Investimento

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As receitas do fundo serão representadas por distribuição de dividendos das empresas investidas e pela desmobilização ou liquidação de participações.

O fundo não resgatará quotas podendo amortiza-las caso ocorra receitas durante o período de capitalização.

## Características do Fundo de Investimento

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Sugestão de meta de rentabilidade da carteira de projetos das empresa investidas: IGPM+20%.

Sugestão do volume de emissão: R\$20.000.000,00 (Vinte milhões de reais), podendo encerrar o período de distribuição pública quando atingir R\$15.000.000,00 (Quinze milhões de reais).

Caso não atinja a meta de distribuição de R\$20.000.000,00 em 180 dias os valores serão rateados entre investidores nas proporções integralizadas.



## Características do Fundo de Investimento

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A administração e gestão do fundo serão de responsabilidade da XXX Asset Management que contratará a SUPRA GEAE como especialista – comitê técnico.

A administradora formará comitê de investimento a fim de estabelecer diretrizes quanto à política de investimentos, aprovar recomendações de investimento ou desinvestimento e acompanhar o desempenho do fundo.

## Características do Fundo de Investimento

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A política de investimentos inclui análise de planos de negócios, direito de veto, direito de participação em desmobilização entre outros.

# Características do Fundo de Investimento

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A taxa de administração será de 3% ao ano, tendo como incentivo à boa gestão prêmio de performance de 20% (vinte por cento) sobre a rentabilidade que exceder IGP-M+6%.

## Vantagens trazidas por Fundo de Investimento em Projeto de Eficientização

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- Ampliação do Nível de Atividade das ESCOs
- Transferência Parcial/Total dos Riscos de Desempenho e Creditício ao Investidor
- Benefício de Avaliação Independente de Projetos
- Benefício de Avaliação Independente de Risco
- Inserção no Processo de Instituições “Formadoras de Opinião”
- Possibilidade de Estruturar Capital por Projeto de Forma Ótima

# Investidor - Público Alvo

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Fundos ambientais internacionais, ONGs,  
Instituições com restrições em investimento  
direto em empresas, Agências  
Governamentais, Fundos de Pensão com  
interesses envolvidos – patrocinadoras e  
investimentos; IFC; FINEP; UNEP etc...