

PERFORMANCE CONTRACTING MODELS



and

RISK MANAGEMENT

PERFORMANCE CONTRACTING MODELS

Range of Options

Business Solutions

Chauffage

Integrated solutions

Supply efficiencies

Comprehensive demand efficiencies

Single measure

More complex

More risk



PERFORMANCE CONTRACTING MODELS

Value Creation

Business Solutions

Chauffage

Integrated solutions

Supply efficiencies

Comprehensive demand efficiencies

Single measure

Value Chain

PERFORMANCE CONTRACTING MODELS

Two dominant world models:

French model

North American model

Neither one is apt to be a perfect fit in Brazil

PERFORMANCE CONTRACTING MODELS

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

SHARED SAVINGS

➤ Shares % of energy COST savings

➤ Usually off balance sheet

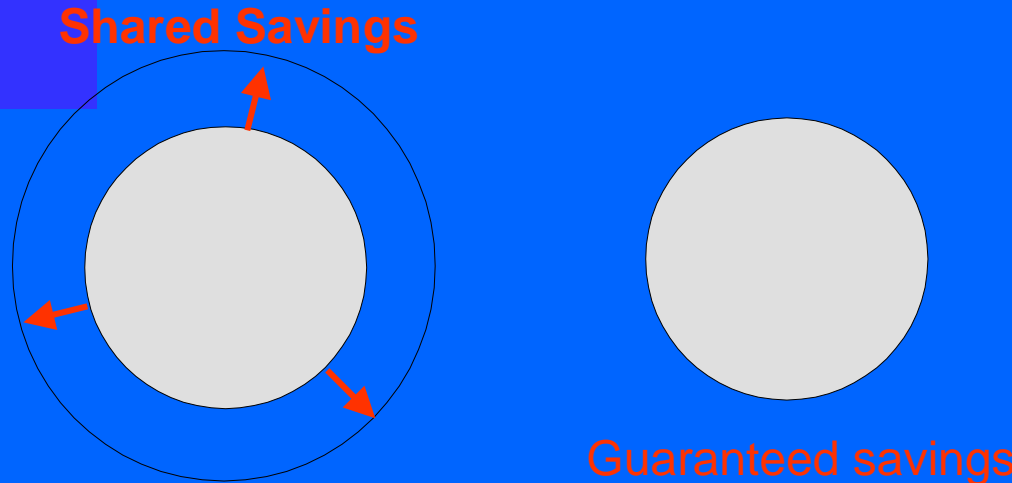
➤ Equipment may be leased

➤ ESCO typically carries financing; so ESCO has credit *and* performance risk

➤ Customer may have more payment exposure

PERFORMANCE CONTRACTING MODELS

CUSTOMER ISSUES IN SHARED SAVINGS



What happens when the “pie” gets bigger?

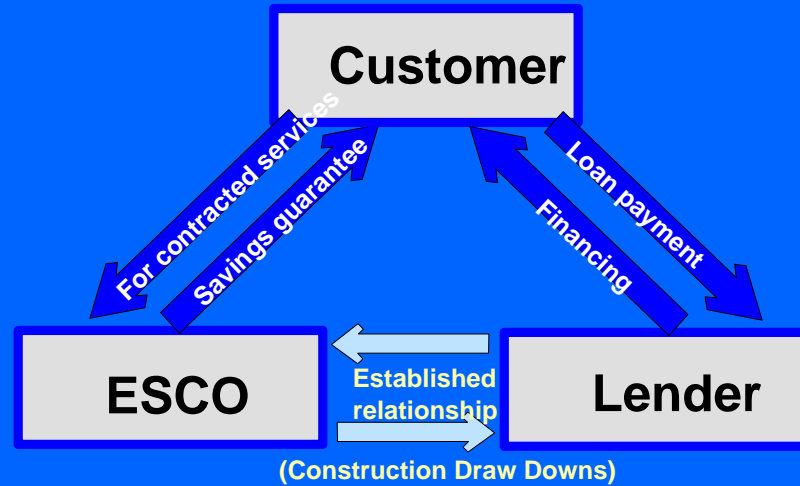
**Payment structure can work against ESCO
as a partner.**

Betting on price of energy can be risky.

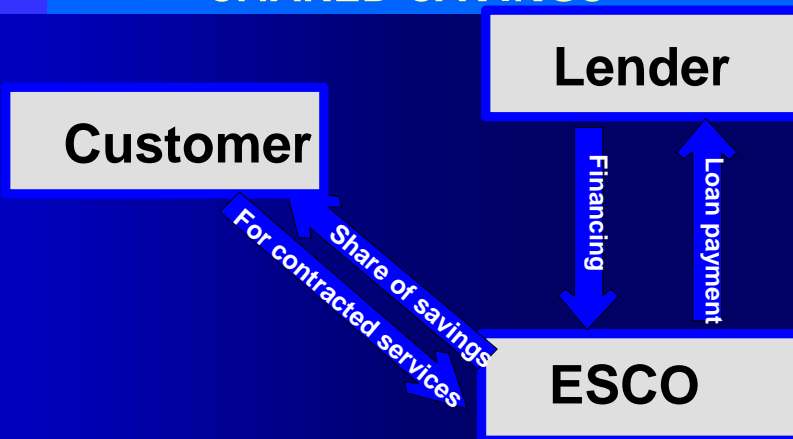
PERFORMANCE CONTRACTING MODELS

CASH FLOW COMPARISON

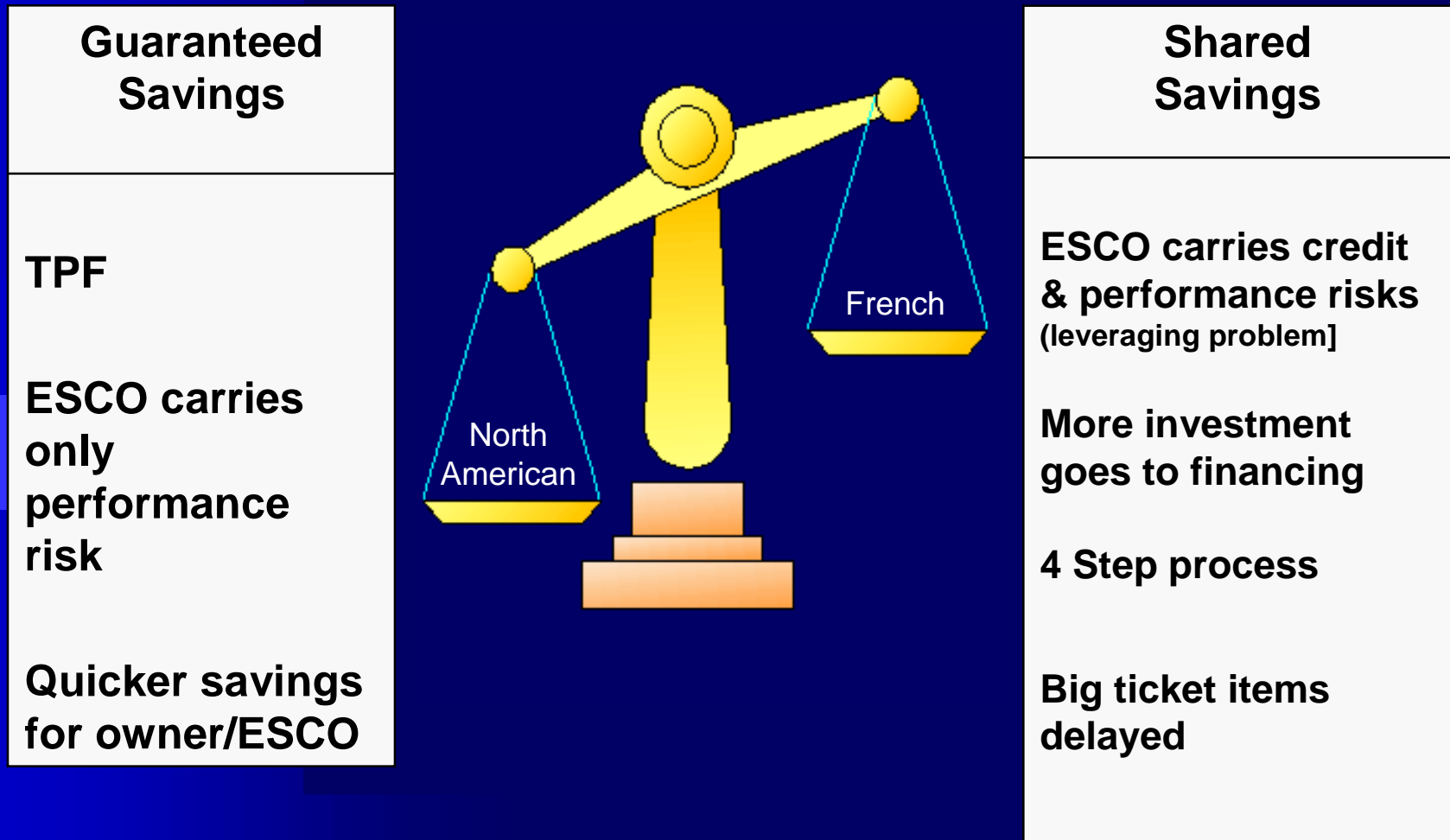
GUARANTEED SAVINGS



SHARED SAVINGS

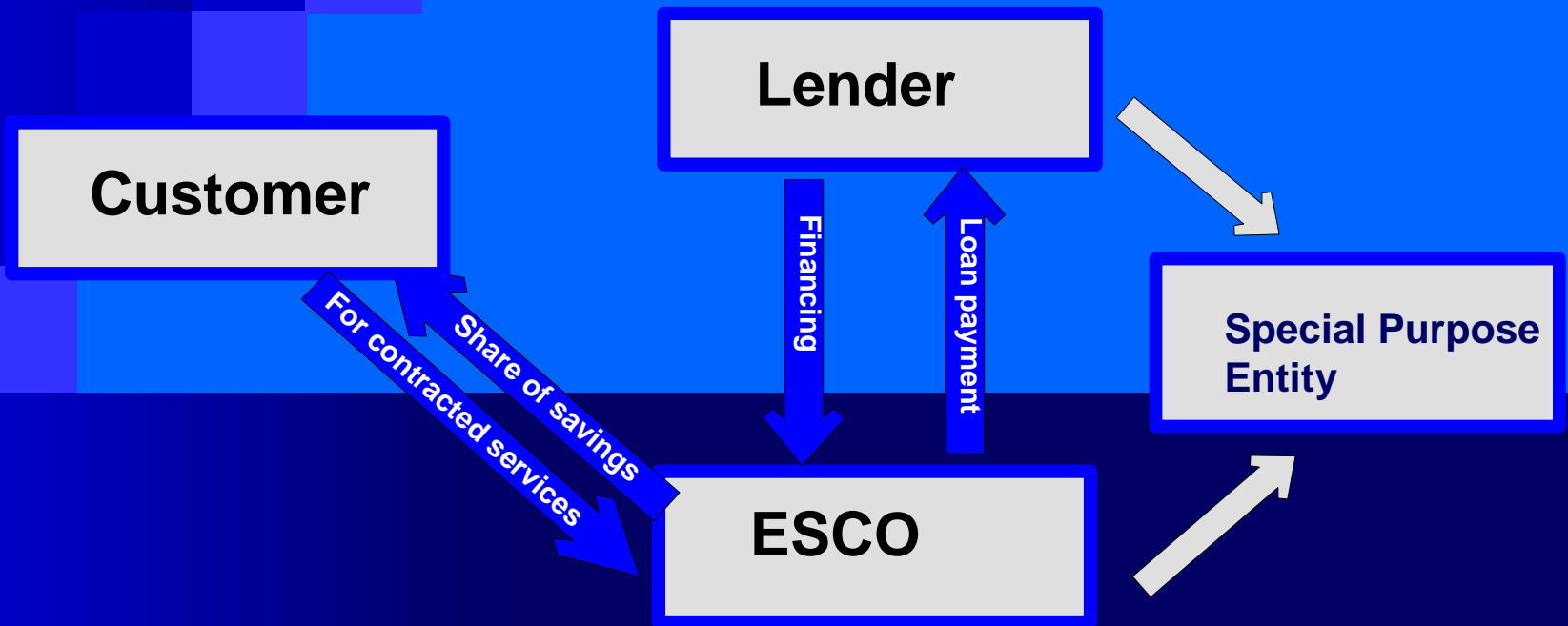


PERFORMANCE CONTRACTING MODELS



PERFORMANCE CONTRACTING MODELS

CASH FLOW: TYPICAL SHARED SAVINGS



PERFORMANCE CONTRACTING MODELS

ESCO Issues in Shared Savings

- * Betting on the future price of energy.
- * Confrontation; adversarial relationship.
- * Customer “non-involvement” in debt

Note: Customers and ESCOs share common concerns regarding shared savings.

PERFORMANCE CONTRACTING MODELS

How can the two dominant world models be modified or adapted to meet Brazil's unique needs?

Consider models on a continuum:



Shared
Savings

Guaranteed
Savings

RISK MANAGEMENT

From 25 years and 31 countries, we have learned ...

Threats to savings

Risks — managing them

Threats to profits

RISK MANAGEMENT

From 25 years and 31 countries, we have learned ...

*Success belongs to the ESCO that
can most effectively:*

- identify the risks
- evaluate them accurately
- develop effective mitigating strategies
- put the right price tag on the risks they accept

RISK MANAGEMENT

Primary rule:

Money follows risk...

If you assign risk, expect to pay for it.

If you accept risk, expect to be paid for it.

RISK MANAGEMENT

From 25 years and 31 countries, we have learned ...

◆ **Key ESCO Risks**

Identification, Management & Mitigation

- > **Customer pre-qualification**
- > **Project Development --
Elapsed time**
- > **Technical --
M&V; baseyear/baseline
Quality of audits**
- > **Project Management**

RISK MANAGEMENT



RISK MANAGEMENT

Most crucial thought of the day:

Performance contracting is risk management

RISK MANAGEMENT

Managing Risks Through Financial Structure

"Reasonable"
savings



100% of Expected Savings

Design
Purchase
Installation
Cost of money

RISK MANAGEMENT

The High Price of Caution

"Reasonable"
savings

Annual utility bill: \$10m
Potential savings: 25%
Payback: 4 years



Company A (75%)

Company B (60%)

RISK MANAGEMENT

ESCO Fee Placement

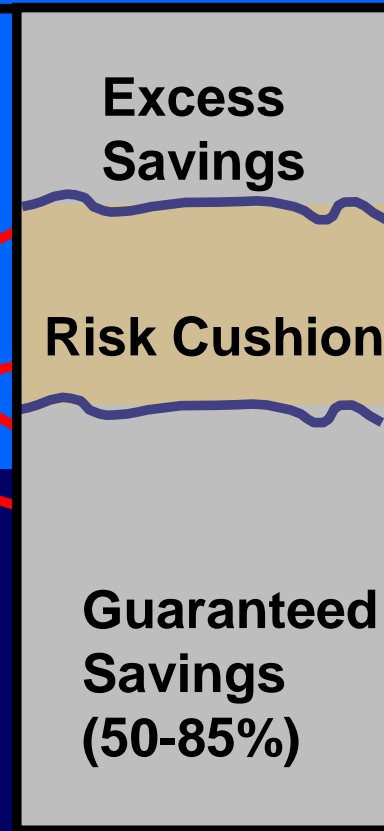
"Reasonable"
savings

ESCO
Fee

3

2

1



100% of Expected Savings

Consider:

Risk implications and potential for maximum project success

RISK MANAGEMENT

To create a “bankable” project ...

And get the most favorable terms

A proposal must show that you have:

- * identified the key risks to achieving predicted savings**
- * have developed ways to manage/mitigate those risks**
- * and have included the associated costs of doing so.**

THE CHALLENGE TO OUR PANEL AND TO YOU

How do we take lessons learned around the world and turn them to our benefit?

What are issues and experiences we need to consider in adapting performance contracting most effectively to Brazil?