

ESCO Experience: Financing and Performance contracting

SAEEEC Presentation

11/17/2017



Agenda

- Intro to Energy Partners
- Financing models that we use
- Examples of successful financed projects
- Key lessons

Energy Partners has been serving some of South Africa's biggest companies for years..

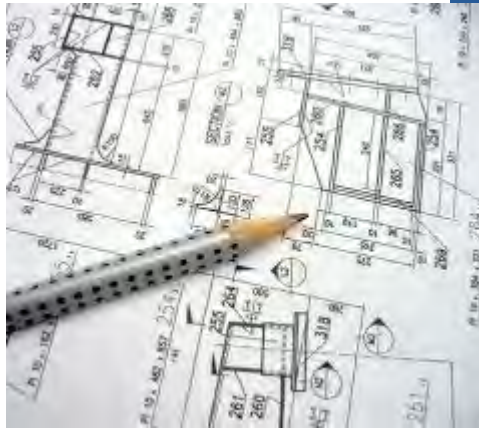


- 7 years in the market
- Over R1bn of electricity accounts under management across 2,000+ sites
- Majority owned by PSG

We offer a fully spectrum of engineering services – all focussed on saving energy



We expanded into financing as the last step in giving the client a complete solution



Design/ Consult



Supply/ Build



Operate/ Maintain



Finance

Range of projects that we finance

Commercial Solar PV
Value R11,200,000 m



Residential Solar Water Heaters
Value R 13,500



Over R100m of
projects financed to
date

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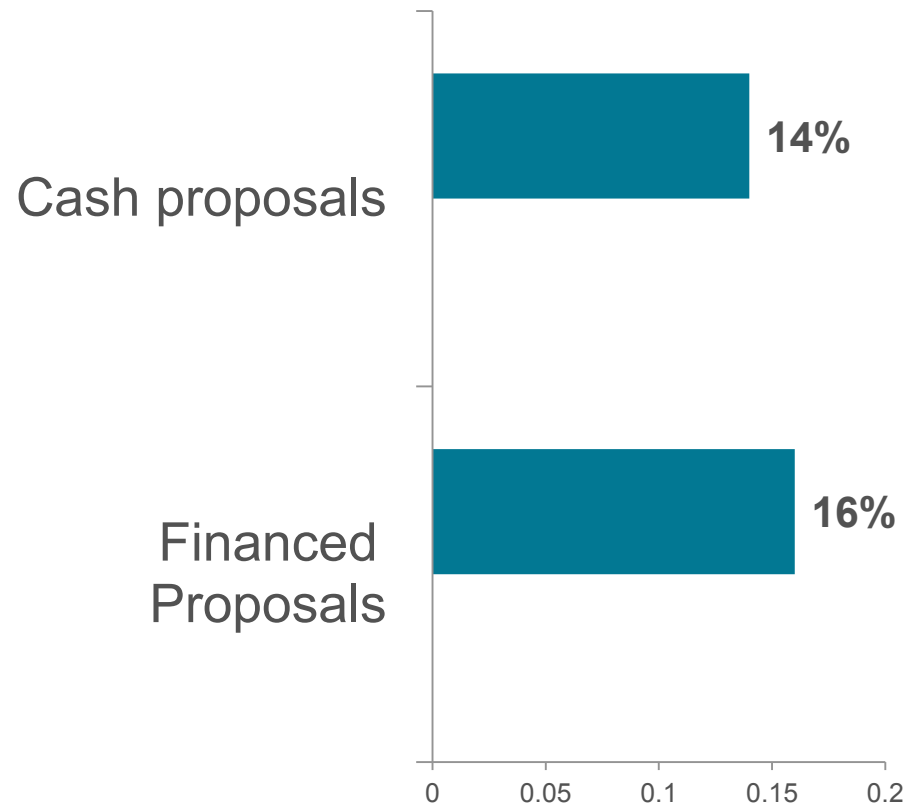
Different views of the role of financing/ performance contracting

As a “silver bullet”:



“If I can offer the client the right “deal” he/ she will definitely buy”

EP Home Solutions Proposal Conversion rates



What is your partner really thinking?

**“It’s not you...
it’s just financing”**



If your client already has a well established channel for accessing finance but is not buying,

...

offering project financing is unlikely to change things

We view contracting (and financing) as a way of clearly communicating the value we add

How ESCOs create value

Contract mechanism

Operating efficiency

- Better design/ technology
- Better operation

- Pay for production
- Performance contract

Asset uptime/
Reliability

- Better design
- Better maintenance

- Uptime guarantee

Utilization

- Matching production to capacity

- Pay for production

Business Longevity

- Minimizing capital at risk

- Short contract duration
- Low cancellation costs

Access to Capital

- Cheaper capital
- Simpler access mechanism

- Pay for production
- Instalment plan

We use a variety of financing and contract forms, depending on the project

Performance contracting

Structure

- Client supplies the capital
- Esco paid a fee for design/ supply/ operation
- Fee linked to savings

Examples

- Lighting
- Hot Water plant
- Solar PV

Performance Lease

Structure

- Esco supplies capital and operates plant
- Client pays based on the performance of the system
- Often requires a utilization guarantee
- Tax advantages

Examples:

- Solar PV
- Desalination plant

Fixed Lease

Structure

- Client pays fixed (or escalating) rental fee
- Typically includes maintenance and uptime guarantee
- Off balance sheet

Examples:

- Refrigeration plants
- Hot water plants
- Solar water heaters

Instalment Sale

Structure

- Client purchases the equipment
- Pays off system over x years
- Tax disadvantageous
- Subject to NCA rules

Examples:

- Residential PV

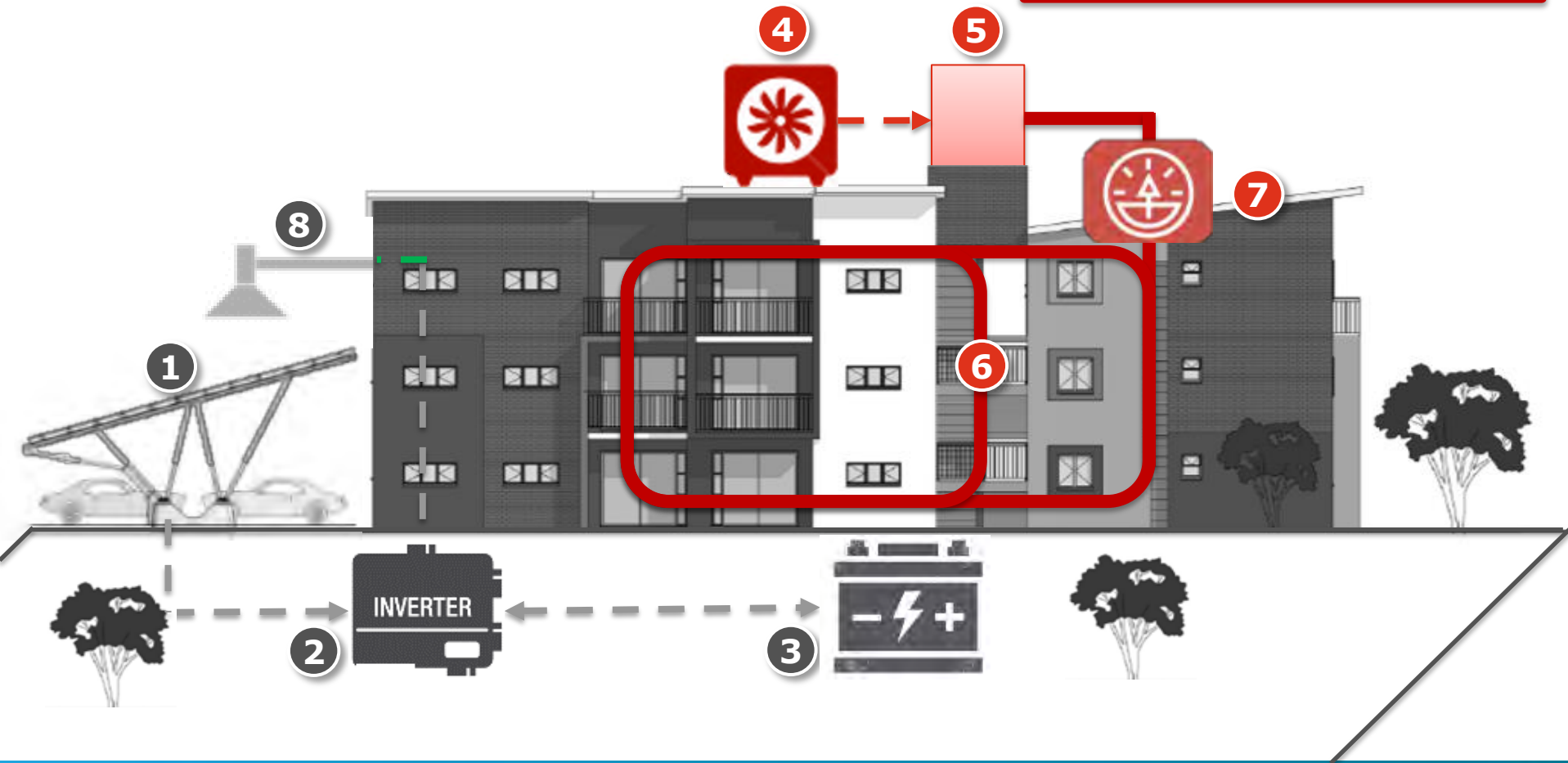
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Example 1: Centralized hot water on apartment buildings

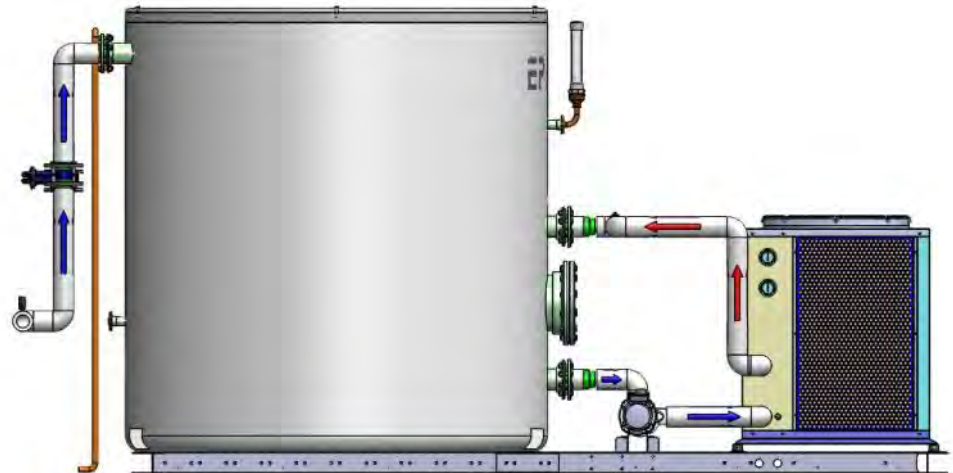
Affordable housing estate: 14 blocks of 20-40 apartments

| | |
|-------------------------------|-------------------|
| Centralized Hot Water System: | 4. Heat pump |
| | 5. Storage tank |
| | 6. Hot water ring |
| | 7. Meters |



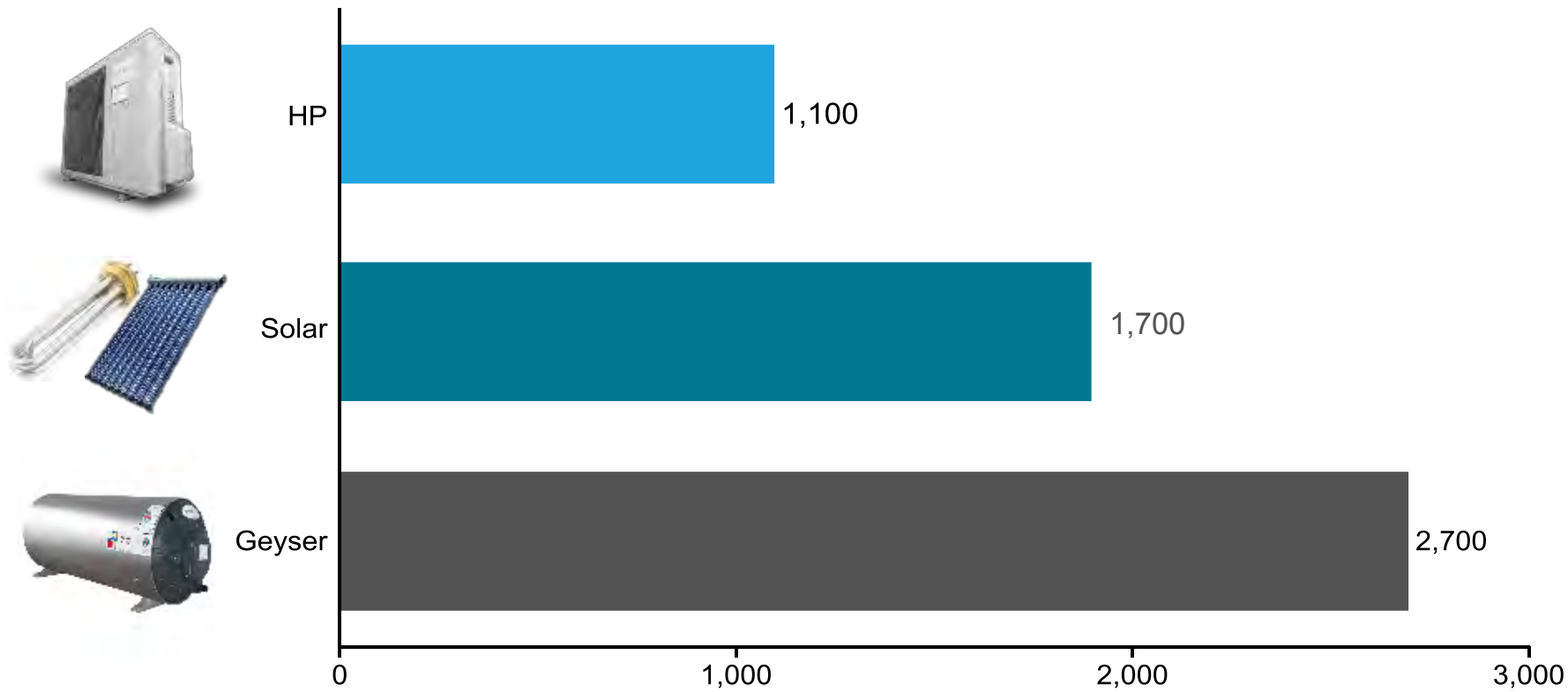
Utilizing our own Modular Hot water plants

- Developed by Energy Partners
- Standard 2,500l and 5,000l sized systems, to be combined in any configuration
- Pre commissioned and frame mounted – delivered to site
- Indirect system with large tank enables much better control and lower cost/l



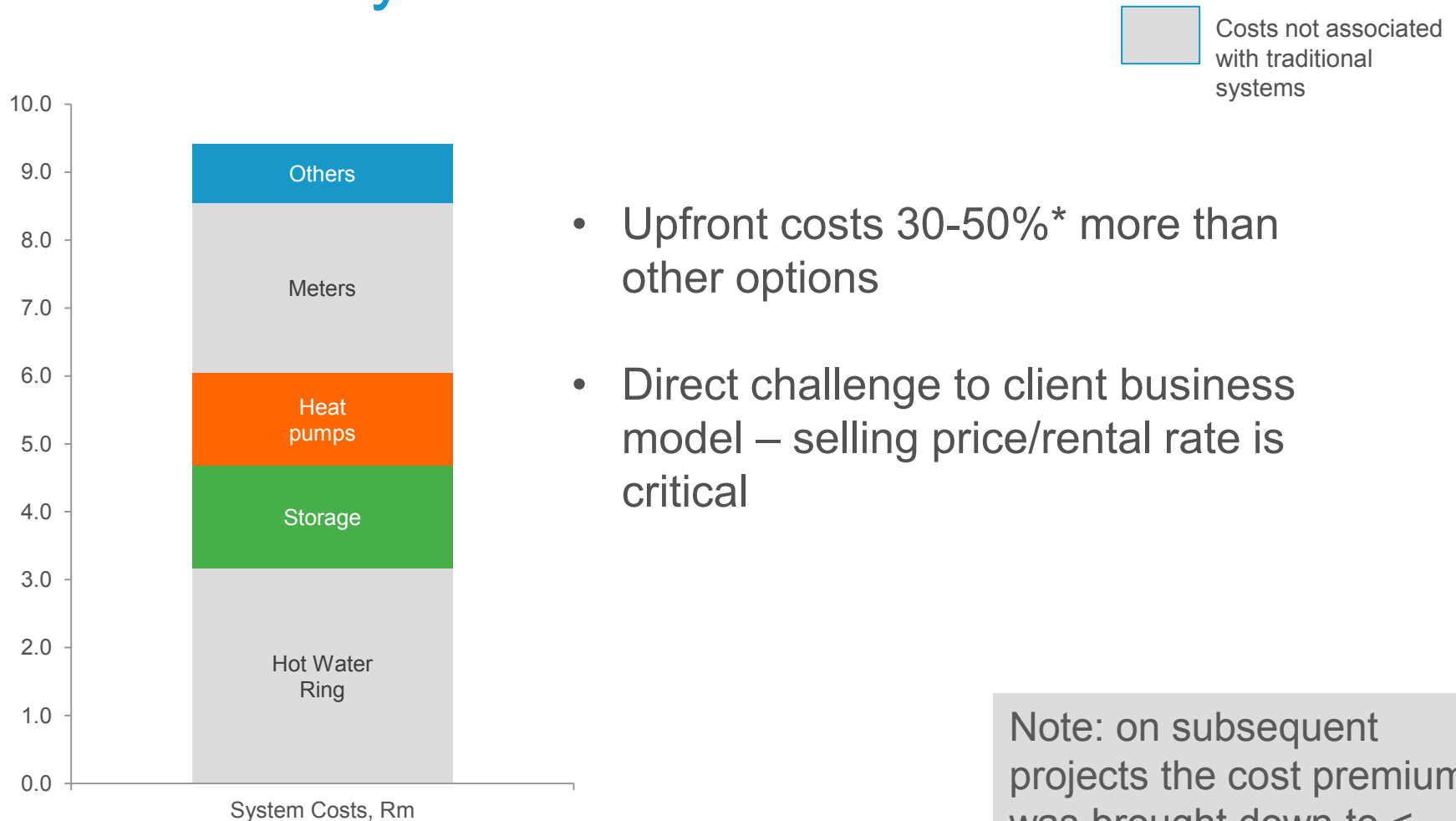
In the long run a centralized heat pump is the most cost-effective solution

Water heating cost, R/apt/year



+ cheaper / simplified maintenance

Unfortunately, upfront cost are higher with the centralized system



- Upfront costs 30-50%* more than other options
- Direct challenge to client business model – selling price/rental rate is critical

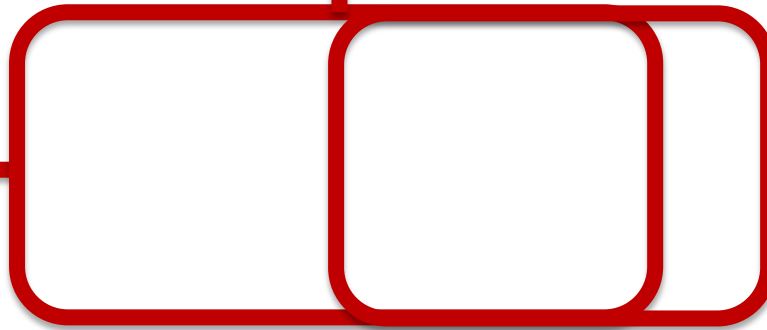
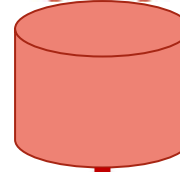
Note: on subsequent projects the cost premium was brought down to < 20%

Solution: Additional revenue from tenant purchases of Hot Water



Tenant

- Pays 4c/l of hot water
- Vs 6c/l electrical cost with traditional geyser



Esco

- Installed plant as a cash project
- Fixed fee to operate and maintain plant with performance contract



Landlord

- Collects additional revenue stream each month
- Generates a 17% return on investment

In this case, landlord elected to finance himself

Central Hot water plant: Division of risk/ responsibility

| | <u>Responsible Party</u> | <u>Contract Structure</u> |
|----------------------------------|--------------------------|---|
| Operating efficiency | ESCO | Monthly maintenance contract <ul style="list-style-type: none">- kWh/l hot water performance guarantee- Uptime guarantee |
| Asset uptime/ Reliability | ESCO | |
| Utilization | Client | Client generated revenue per l supplied |
| Business Longevity | Client | Client to supply 100% capital upfront |
| Access to Capital | Client | |

Example 2: Food Production Steam Boiler Outsourcing

SITE INFO:

- Fruit juice manufacturing site , steam used for pasturization
- 10 t HFO boiler producing ~2,000 tonnes of steam per month
- Steam production cost – **R615/t**

EP SOLUTION:

- Switch boiler fuel from HFO to Coal
- Replace with smaller boiler
- Install Proprietary Boiler control system
- EP take over boiler operation

RESULTS:

- 5 year supply contract with client –price **R290/t**



Steam Boiler Outsourcing: Division of risk/ responsibility

| | <u>Responsible Party</u> | <u>Contract Structure</u> |
|----------------------------------|--------------------------|--|
| Operating efficiency | ESCO | Steam sold at R/tonne rate |
| Asset uptime/ Reliability | ESCO | Uptime guarantee – set in line with historical client levels |
| Utilization | Client | Monthly “availability” fee |
| Access to Capital | ESCO | Covered through availability fee |
| Business Longevity | ESCO | 5 year contract, with low cancellation |

Example 3: Residential PV Financed Sales

Full Home System

- + 4.8 kW heat pump
- + 500l tank
- + Icon 3.6 kWh LiFePO4 battery
- + ICON 3kW Hybrid inverter
- + 10 x 325 Wp panels
- + Mounting structure
- + Installation and Balance of system



Cash

Price = R186k
(ex. VAT)

Financed

5 years @ 13.5%
interest
= R2,500 pm

Residential PV Financed Sales

| | Responsible Party | Contract Structure |
|--------------------------------------|--------------------------|---|
| Operating efficiency | Shared | Esco guarantees “lab” performance Client responsible for field performance |
| Asset uptime/ Reliability | ESCO | Hardware warranty |
| Utilization | Client | Fixed payment to ESCO, whatever utilization |
| Access to Capital | ESCO | |
| Business Longevity | Client | Client – high cancellation penalties in line with costs |

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Key lessons

- Business risk/priorities trump savings
 - *Make sure you understand how your project affects your client's business*
- Start the discussion with “who adds what value/takes what responsibility”
 - *Then translate into contract structure*
- Don't be afraid to have multiple charges in the contract
 - *Trying to bundle everything into 1 figure often doesn't help*
- Be prepared that clients might not be able to make the right comparison
 - *You may not be cheaper than the insourcing*
 - *Don't be tricked into over-promising*