Third-party investment in building renovation works: the emergence of a promising new model of public-private partnership

Blaise Desbordes
Head of Sustainability, Caisse des Dépôts
Co-chair, UNEP-FI Property Working Group
October 23th 2009
UNEP FI Property Working Group

AXA Real Estate Investment Managers (France)
BCIMC (Canada)
Caisse des dépôts (France) co-chair
CalPERS (USA)
Calvert Group (USA)
Colonial First (Australia)
CTBR (Switzerland)
F&C Property Asset Management (UK)
Hermes Real Estate (UK)
Infrastructure Leasing & Financial Services (India)
Investa (Australia)
Kennedy Associates (USA)
Mitsubishi UFJ Trust and Banking Corporation (Japan)
Mn Services (NL)
AVIVA (Morley Fund Management UK)
PRUPIM (UK) co-chair
Sumitomo Trust (Japan)
UBS (Switzerland)
WestLB AG (Germany)

Advisor & : Pr. Gary PIVO, University of Arizona
Publications and common works
Buildings: a major issue for sustainability, especially Climate Change

Very (too ?) ambitious targets for energy efficiency in buildings in the Climate Change Agenda

- The most shared targets set by international standards and agreements:
  - Limiting global warming to 2°C requires reducing global CO2 emissions by half in 2050
  - Developed countries must reduce their emissions by 75% - « Factor 4 »
  - Buildings: sector in which the bigger savings are expected: factor 6 ? 8 ?
To achieve it, the dream: very low carbon cities....

Projected Dongtan, China

Projected Masdar, Abu Dhabi
...the reality: millions of buildings to be refurbished and made energy efficient
How to finance that?

- Considering:
  - The building has already been financed: difficult to reinvest 100% of the value
  - The less energy efficient are occupied by the poorest tenants
  - The cost is for landlords, the savings benefit for tenants
  - Public subsidies likely to be reduced (public budgets situation in the post crisis context)
  - The Property Community probably has to innovate, to invent new financial mechanisms, mixed with public incentives
  - One of them is: THIRD PARTY INVESTOR
An example to illustrate the issue:

Inventing a third-party investor in high performance building renovation

An ongoing experiment in France led by Caisse des Depots with partners (Energy Agency, City of Paris..)
The funding needs to implement the first renovation program planned through the Grenelle Deal is estimated at €130 billion.

- This investment is for the renovation of public buildings to reduce energy consumption.
- Governmental authorities intend to finance 50% of the renovation through savings in energy bills guaranteed in the form of energy performance contracts.
- This represents €60-70 billion including housing, which breaks down into:
  - Government (national, regional and local) buildings: €30-35 billion
  - Housing (private and public): €30-35 billion
Some financial tools have been developed to meet the demand for investment in the building sector

WHAT ALREADY EXIST

- Loans to tenants
- Loans to owners/landlords
- Investment tools for facility managers to improve energy efficiency
- Energy contracting…

⇒ But these financial mechanisms operate separately, without global approach of what could be achieved
Why is a Third Party Investment mechanism needed?

- Existing Third Party Investors (TPI) generally do not address the building structure (systems only)
- Existing market-oriented financial tools look for shorter paybacks
- Strong need to a **global operator**, 
  - Able to consider the global potential energy savings
  - Able to guarantee the energy performance
  - Able to legally secure the global deal in a long term perspective

=> Despite all the tools currently in place, there is a need to create complementary schemes to facilitate investments in energy efficiency and meet the « Factor 4 » targets
Concept of a Third-Party Investor (TPI) in the building sector

1. Investment in building equipment and structure (wall’s insulation, windows, roofs…) to ensure energy savings

2. Sharing energy savings between the tenant and the TPI until the TPI is reimbursed for its investment (including earnings)

3. Securing the global deal and gathering different actors who won’t necessarily work together
**Schema of a TPI mechanism**

**Investments** engaged in by the TPI in Year 0. **Income in X years** through the savings in energy costs compared to the standard defined in the base year (before investment).
Business model for performance contracting involving a TPI

**Present costs** = baseline

**Energy costs after refurbishment**

**Total energy costs**
- fuel;
- electricity;
- maintenance;
- repair (substitute investment);
- personnel;
- other

**Present state**

**Saving energy investment**

**CR-EPC contract**

**CR-Contracting rate for**
- comprehensive refurbishment measures
- prefinancing the investment
- increased comfort + added value
- operation & maintenance
- taking over risks

**Time**

**Energy cost savings for facility owner**

**Overall energy costs (new)**

... Accounting adjustments (yearly):
- energy price (reference prices from baseline)
- climate (outer temperature by # of “degree days”)
- changes in utilization of facility

**Annual costs**

**Investment cost subsidy!**

**Present costs**

**Annual costs**

**Total energy costs**

**CR-Contracting rate for**

**Energy cost savings for facility owner**

**O&m cost**

**Service life of the investment**

**Investment cost subsidy!**

**Total energy costs**

**Annual costs**

**Investment cost subsidy!**
Position of TPIs in the marketplace: how to be relevant?

ENERGY SAVINGS TARGETS

TPI INITIATES AND MANAGES “FACTOR 4” PROJECTS
FUNDING SOURCES: DEDICATED FUNDS
PERIMETER: “UNMARKETABLE RENOVATIONS”
PAYBACK > 20 ANS

TPI FINANCES AND MANAGES DIVERSE FUNDING SOURCES
PERIMETER: CURRENT WORKS + BUILDING STRUCTURE
PAYBACK < 20 ANS

PERIMETER: HEATING & COOLING EQUIPMENT
PAYBACK < 15 YEARS

PPP with TPIs

SCENARIO “Factor 4”

SCENARIO GRENEILLE 1 (soon legally binding)

SCENARIO TODAY

Length of energy contracts today
15 years
20 years
Over 20 years
# 3 Existing TPI initiatives and organisations in Europe

<table>
<thead>
<tr>
<th>Country</th>
<th>Germany</th>
<th>Belgium</th>
<th>Austria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actor</strong></td>
<td>Berlin Energy Agency</td>
<td>FEDESCO (subsidiary of a public investment company)</td>
<td>Graz Energy Agency</td>
</tr>
<tr>
<td><strong>Role</strong></td>
<td>Assistance in managing calls for tenders. Pooling buildings and projects to reduce costs and share risks.</td>
<td>TPI with a monopoly over investment in public buildings. No call for tenders necessary.</td>
<td>Assistance in managing calls for tenders. General planning in cooperation with other actors.</td>
</tr>
<tr>
<td><strong>Positives</strong></td>
<td>Assistance in managing calls for tenders. System of pooling buildings and projects.</td>
<td>Legal mecanism which bypasses the tender process for public buildings; Role of coordinator / ensemblier.</td>
<td>Assistance in managing calls for tenders.</td>
</tr>
<tr>
<td><strong>Negatives</strong></td>
<td><strong>Investment in</strong>&lt;br&gt;Energy systems : yes&lt;br&gt;Building insulation : NO</td>
<td><strong>Investment in</strong>&lt;br&gt;Energy systems : yes&lt;br&gt;Building insulation : NO</td>
<td></td>
</tr>
</tbody>
</table>

Implementing TPI investments: remaining legal challenges

■ For co-owned properties:
  ■ Strengthen and streamline the collective decision-making process (funding, management of communal areas, hiring contractors, etc.)

■ For social housing:
  ■ Allow for more flexibility in agreements between housing agencies and tenants to share the costs of renovation

■ For public buildings:
  ■ Adapt the legal framework to facilitate the participation of TPIs in renovation works
  ■ For all: legally guarantee standards on energy performance
Conclusions

- There is a field for TPI to provide solutions to owners who want to reach a very high energy performance target in their refurbished buildings (= public actors for instance).
- There remain some legal risks, depending on local legislations.
- There is a need of experimentations (2009-2010 in France).
- Private operator should accept to be part of a `global approach’ that includes:
  - private money
  - governmental grants
  - any other fundings
Climate models showing Paris and Vienna with the climate of Sevilla-Spain in 2100.