

Financing Energy Efficiency in Commercial Buildings

Presented to

Sustainable Communities Conference

John Christmas, SVP

Hannon Armstrong

Ground Rules and Context

- Hannon Armstrong's focus is the reduction of energy intensity
- Federal government and MUSH markets have proven models
- Existing commercial office building (“COB”) sector does not
- Addresses roughly 20% of US GHG emissions
- Remarks therefore focus on energy efficiency in the existing COB sector

Is there a “Green” Advantage?

- **Enhanced Financial Performance**
 - Net Operating Income
 - Occupancy
 - Rent Premium
 - Sales Price
- **Risk Mitigation (Market vs Energy)**
- **Comfort and Productivity**
- **Big Step toward Sustainability and Environmental Responsibility**

Challenges of COB Ownership

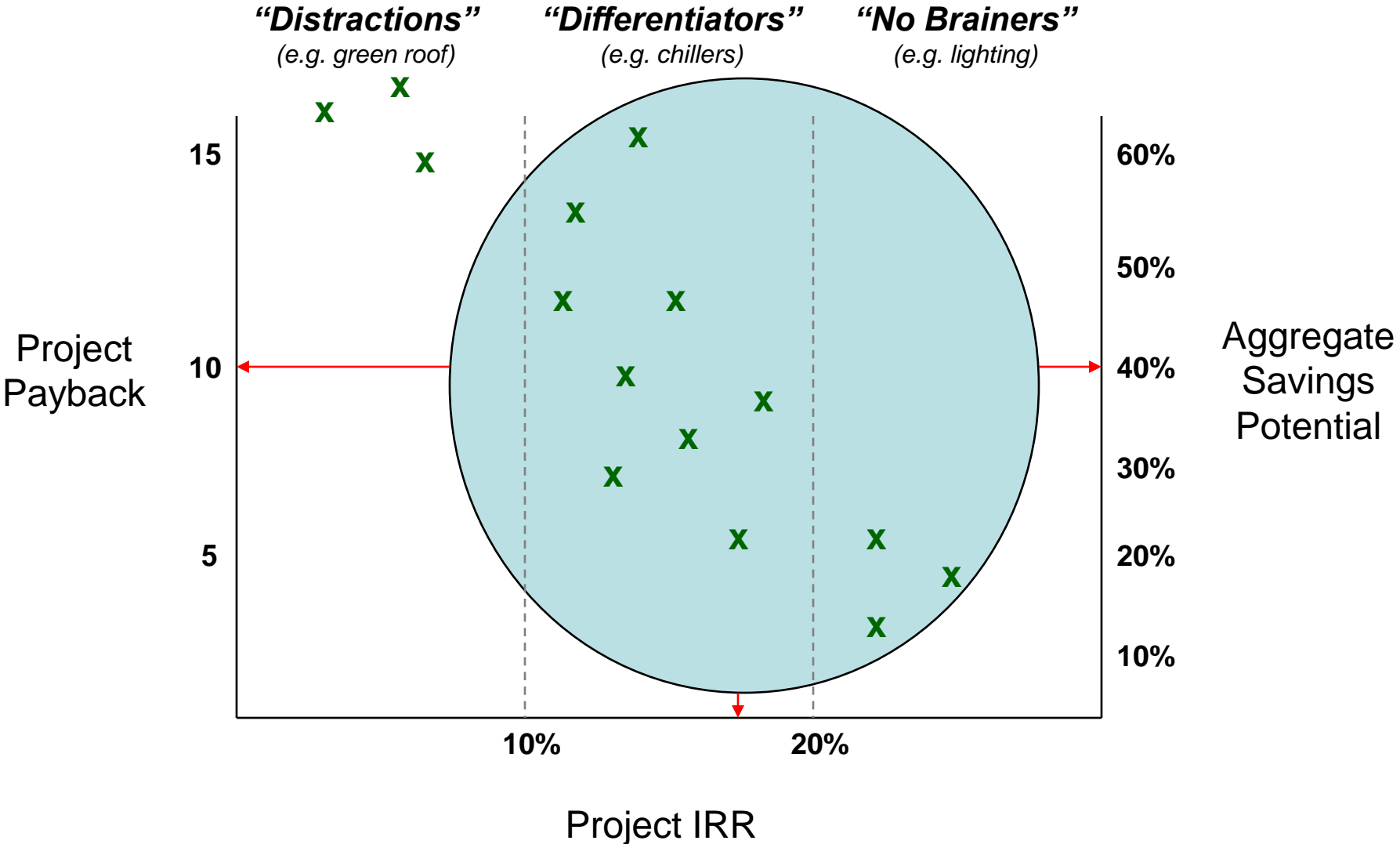
PRIMARY STRUCTURING GOALS:

- **Building LLC is the counter-party**
- **No financial covenants**
- **No parent guarantee**
- **No equipment ownership or lien waiver from first mortgagee**
- **Subordinated payment**
- **Contract “assignability”**

Underwriting an Energy Retrofit Project

- Building location
- Building financials
- Building occupancy
- Minimum size and term
- Approved documentation
- Investment-grade contractor

Green Retrofit Model



The Role of Public Policy

- Energy efficiency projects are self-funding – not subsidy-driven
- Market transparency through benchmarking and disclosure
- Establishing the carbon market



Contact:

John J. Christmas
Hannon Armstrong
Senior Vice President
Tel: (410) 571-6164

jchristmas@hannonarmstrong.com

Hannon Armstrong's Efficiency Finance Group