Why clients/developers invest in operational energy modelling

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• **6.4m sq ft**
  London portfolio

• **2m sq ft**
  London development pipeline

• **RE100 & EP100**
  signatories

• **28.6%**
  carbon intensity reduction

• **1.4MW**
  on-site renewable electricity capacity
Why we need to improve
What happens when we get it wrong

Monthly cost
Estimate vs Actual

- 2018/04 Actual: 147.52%
- 2018/05 Actual: 129.84%
- 2018/06 Actual: 134.59%
- 2018/07 Actual: 116.39%

Monthly cost:
- 2018/04: 147.52%
- 2018/05: 48.40%
- 2018/06: 129.84%
- 2018/07: 134.59%
- 2018/08: 116.39%
To offer a better product to our customers

- Budget prediction
- Informed discussions with prospective tenants
- Link operational energy modelling with Soft Landings framework
To reduce our carbon intensity

• **- 40%** by 2030
• **- 80%** by 2050

Against 2013-14 baseline
To reduce our energy intensity

Comparison with Utility Benchmarks

- Consumption (kWh/m²)
- 21MF, TM46, Landsec A, Landsec B, Landsec C
- Total Gas
- Total Electricity
To drive higher returns

• **17%** higher net income ($/m²),

• **21%** higher capital value ($/m²), and

• **45%** longer lease expiry for high performing NABERS ratings

(IPD Australia Market Results Update, 2014)

Source: IPD Australia Green Investment Property Index, June 2013
Design for Performance initiative

- Set target for measured base building rating
- Integrate target into requirements for supply chain
- Advanced simulation model to predict base building performance
- Independent Design Review to check target will be achieved
- Intensive fine-tuning and monitoring against model targets
- Verify & disclose rating; lessons learnt by supply chain
Thank you!

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