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Department of the Environment and Water Resources



European Council for an Energy Efficient Economy

eceee 2007 Summer Study

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Content

- Energy Efficiency in Government Operations (EEGO) Policy
 - What is Government Operations
- Green Lease Schedules (GLS)
 - What is a GLS?
 - Australian Building Greenhouse Rating (ABGR)
 - Minimum Energy Performance Standards for office buildings
 - Why develop GLS
 - Outcomes
 - Supply Chain Impacts





What is Government Operations

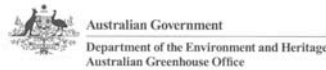
- Manage 113 Agencies for energy efficiency
- Agencies report annually since 1997
- Energy Intensity Targets
 - Tenant light and power (7500MJ/per person/pa)
 - Central services (400 MJ/ per m²)
- Energy Efficiency in Government Operations (EEGO) new policy (2006)



EEGO Policy

EEGO Policy Features

- Achievable energy intensity Targets
- Lease-based partnership management model
 - Green Lease Schedule (GLS)
 - 4.5 stars ABGR
- Improved consistency across government
 - 5 standard GLS clauses
- Flexible
 - GLS Exceptions on ratings
- Comprehensive education and awareness program
- Defence Department Strategy for Energy Reduction



ENERGY EFFICIENCY
IN GOVERNMENT OPERATIONS (EEGO) POLICY





EEGO Policy Context



▶ ENERGY EFFICIENCY IN GOVERNMENT OPERATIONS (EEGO) POLICY

- Existing Building Strategy
- Benchmarking Strategy
 - Laboratories
 - Computer Facilities
 - Public Buildings
- Report back to Government 2008
 - GLS
 - Existing Building Strategy
 - Benchmarking Strategy
 - Cars
 - Appliances





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Annual Reporting...essential



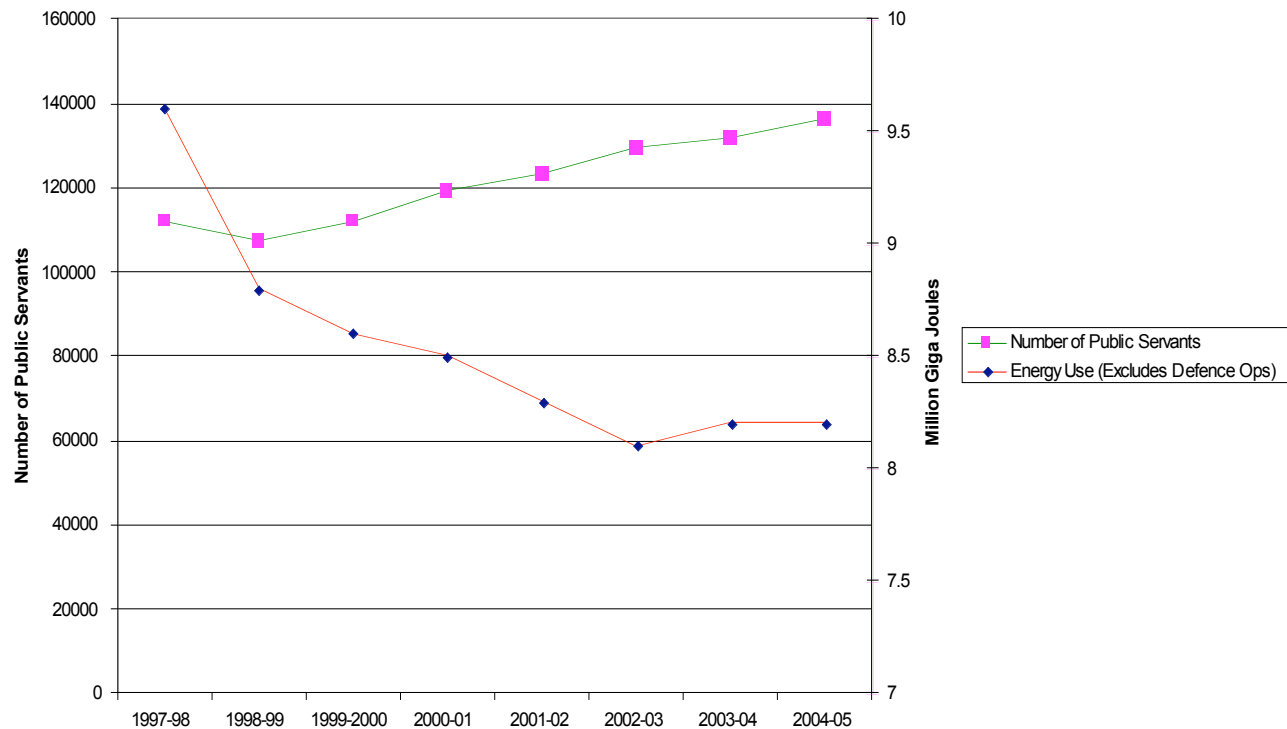
- All agencies report energy consumption to DEW
- DEW table report to Parliament
- Ministers are accountable for their agencies performance
- Ten years of annual reporting
 - From 1997 to 2007





Energy Efficiency Performance in Australian Government Operations

Total Energy Use of the Australian Government (Excluding Defence Operations)
and the Number of Public Servants





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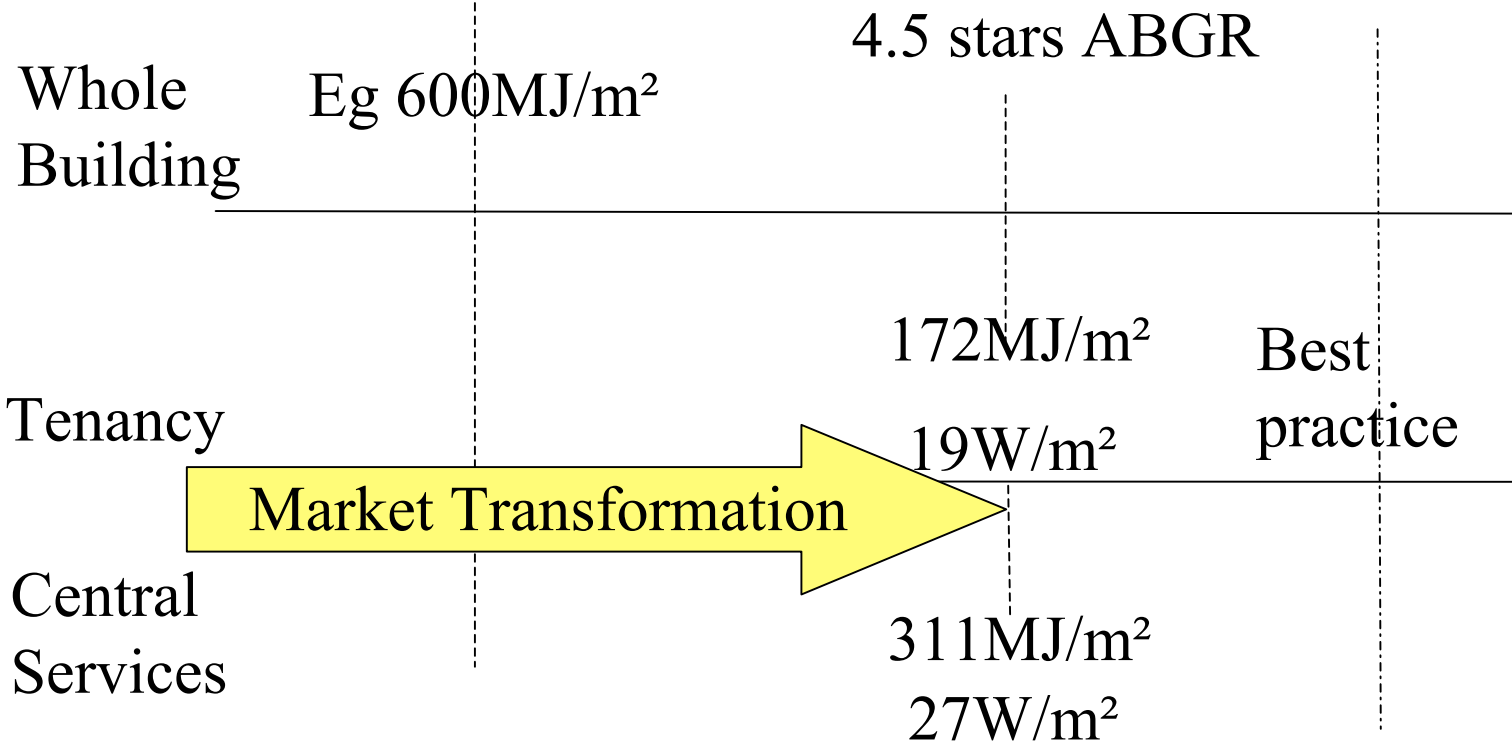
Stakeholders.....Consultation!!

- Superannuation Funds
- Property Trusts-Owners /Agents/Developers
- Lawyers
- Engineers-electrical/mechanical
- Architects/Builders/Developers
- ESCOs
- Bureaucrats
- Other Australian state and territory governments
- Property Industry Lobbyists



EEGO Policy Context

Building Code



Not to scale



Commercial Office Lease

Building Lease

- Key Commercial terms
 - Rent
 - Term in years eg 15yrs
 - Area
 - Accommodation Standard
 - Energy Efficiency?

Green lease schedule

- Is attached to the lease
- Own remedies
- Has precedence over the lease
- Not in immediate breach of lease for non performance
- No direct financial penalties





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A new approach....

- Managing **actual performance** of commercial office building
- New area of contract law/property law
- Using smart meters data as energy management tools
- Enhanced management system for owners and tenants
- Managing the legal risk rather than breach of lease
- Collaborative arrangement rather than adversarial





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What is a GLS?

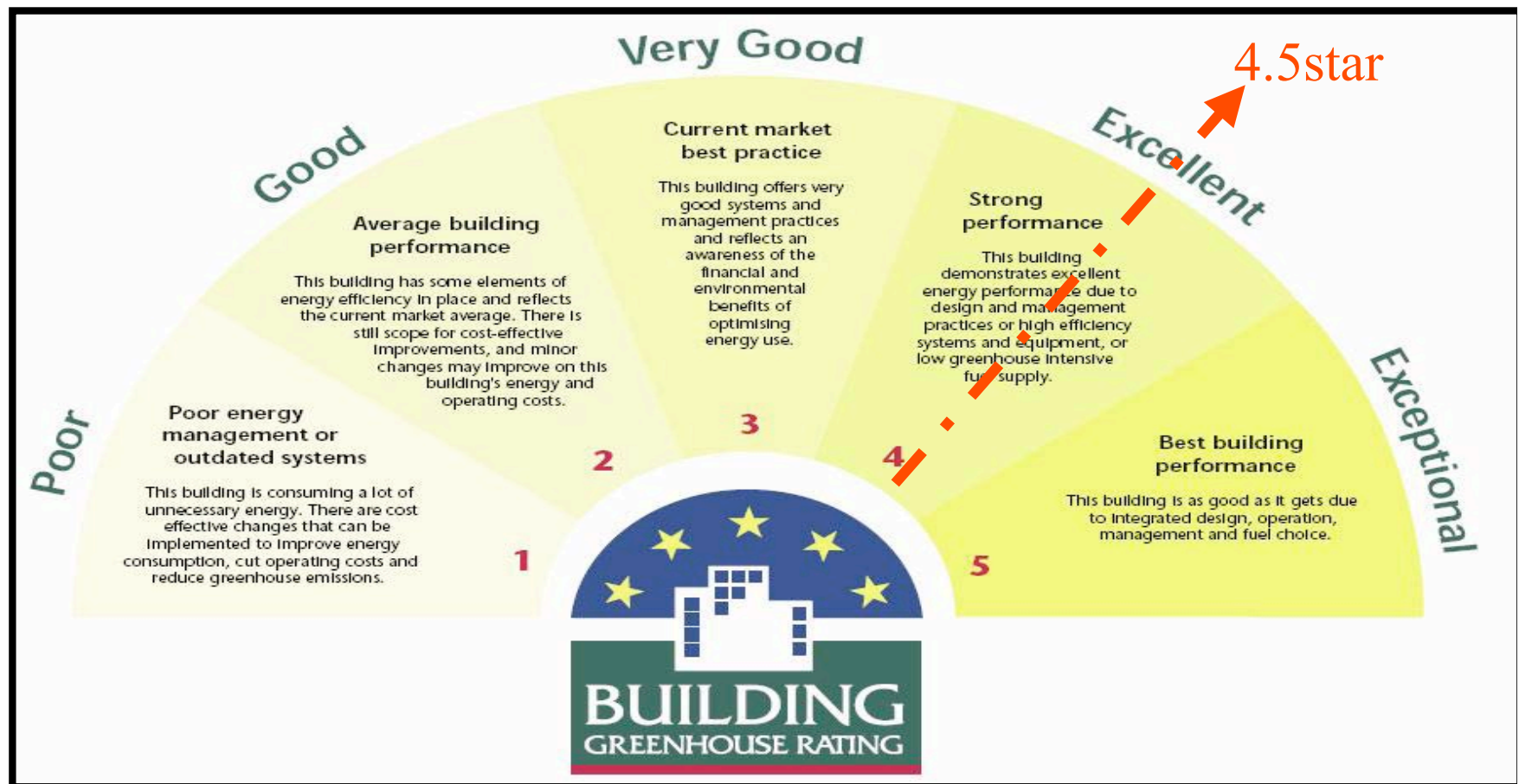
A GLS has five standard clauses to promote uniformity, consistency and market acceptance.

- 4.5 stars Australian Building Greenhouse Rating energy performance or alternative (MJ/m²/annum)
- An energy management plan
- Separate smart metering for tenant and central services
- A building management committee
- Remedial action/dispute resolution clauses

(Optional sustainability clauses for water, waste and car pooling, greenpower)



GLS uses 4.5ABGR to assess building energy performance



Australian Building Greenhouse Rating (ABGR) scheme



Why develop GLS

- Before the GLS introduced :
 - No formal legal mechanism to manage building energy efficiency outcomes
 - Buildings designed to a energy efficient standard... but very hard to prove **actual performance** when operational
 - Building Commissioning and Maintenance performance varied/poor
 - No ongoing annual assessment of energy performance
 - Significant errors made in building design, construction and commissioning
 - **Split incentives issues between owner/tenant**





Minimum Energy Performance Standards for office buildings:

| Element | Net lettable area | | | |
|----------------------|--|---|---|--|
| | ≥ 2000 m ² | | | < 2000 m ² |
| | 100% of total building area | 50% to 99% of total building area | < 50% of total building area | |
| Base building | ≥ 4.5 stars ABGR, or equivalent, level of energy efficiency for whole building | ≥ 4.5 stars ABGR, or equivalent, level of energy efficiency | No requirement | No requirement |
| Tenanted area | | ≥ 4.5 stars ABGR, or equivalent, level of energy efficiency | ≥ 4.5 stars ABGR, or equivalent, level of energy efficiency | Separate digital metering and max 10 W/m ² for lighting |
| Lease | To include a Green Lease Schedule | | | No Requirement |
| Appliances | US EPA 'Energy Star' compliant* with power management features enabled at the time of supply | | | |



Outcomes

- Market acceptance of GLS as new area of contract /lease property law
- GLS is being used by major private sector building owners / superannuation funds for own tenants
- GLS has caused significant commercial office market transformation:
 - Owners/Tenants adopting future proofing strategies for buildings/Tenancies in both design and management performance
 - Property Industry has developed own accommodation guidelines that has GLS elements for property valuations purposes
 - Australian State governments and Territories now considering implementing Green Leases.. Very soon!!





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GLS benefits

- Resolves the split incentive issue
- Addresses building commissioning issues
- Ensures that plant and equipment is operating as designed –(maintenance is focussed)
- Makes sure tenancy energy efficiency requirements are performing as designed
- Enhances communication channels with owners tenants, consultants
- Maintains the ongoing energy performance standard of the building/tenancy





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Market Drivers



A GUIDE TO OFFICE BUILDING QUALITY

A Guide to Office Building Quality provides two sets of guidelines – an easy to use matrix for grading existing office stock and a specification for new office buildings.

The Voice of Leadership

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ENERGY EFFICIENCY
IN GOVERNMENT OPERATIONS (EAGO) POLICY

Green Lease Guide
for commercial office tenants

'Big savings can be easier and cheaper to achieve than small ones if you combine the right ingredients in the right way.' Amory Lovins



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The Voice of Leadership



Property Market Transformation

Existing Buildings

Premium, Grade A and B

- ABGR rating, and supported by a management plan

New Buildings

Premium, Grade A

- ≥ 4.5 stars ABGR Base or whole building rating

Grade B

- ≥ 4.0 stars ABGR Base or whole building rating



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Negotiating a GLS

- Achieving 4.5 stars ABGR needs to be well planned both from owner and tenant
- GLS needs to be negotiated up front –not an afterthought!
- Mutual agreement on Energy management plan
- Evaluation of energy efficiency specifications
- Ongoing collaboration with owner /tenant





EEGO Policy – GLS Exceptions

Exceptions:

- Not practical or cost-effective:
 - Location
 - Heritage
 - Security
 - Operational constraints
- Market testing
- Highest possible ABGR



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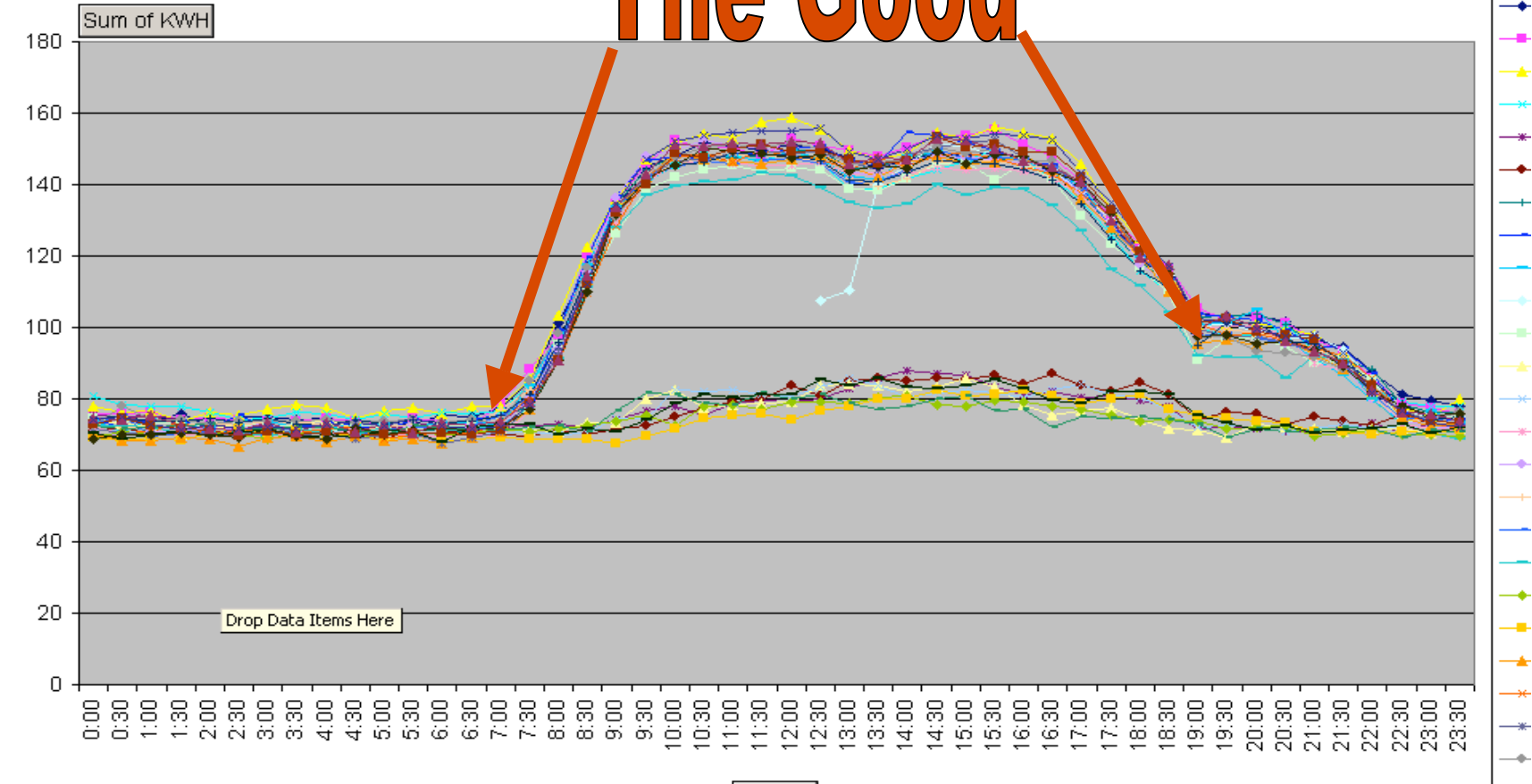
Successfully Managing a GLS

- Review building reports by exception
- Assess meter data for plant/tenant power
- Understand the logic behind the Energy Management Plan
- Commissioning
- Maintenance
- Low overnight energy loads
- Actual performance-Not '*Greenwash*'



Month 7

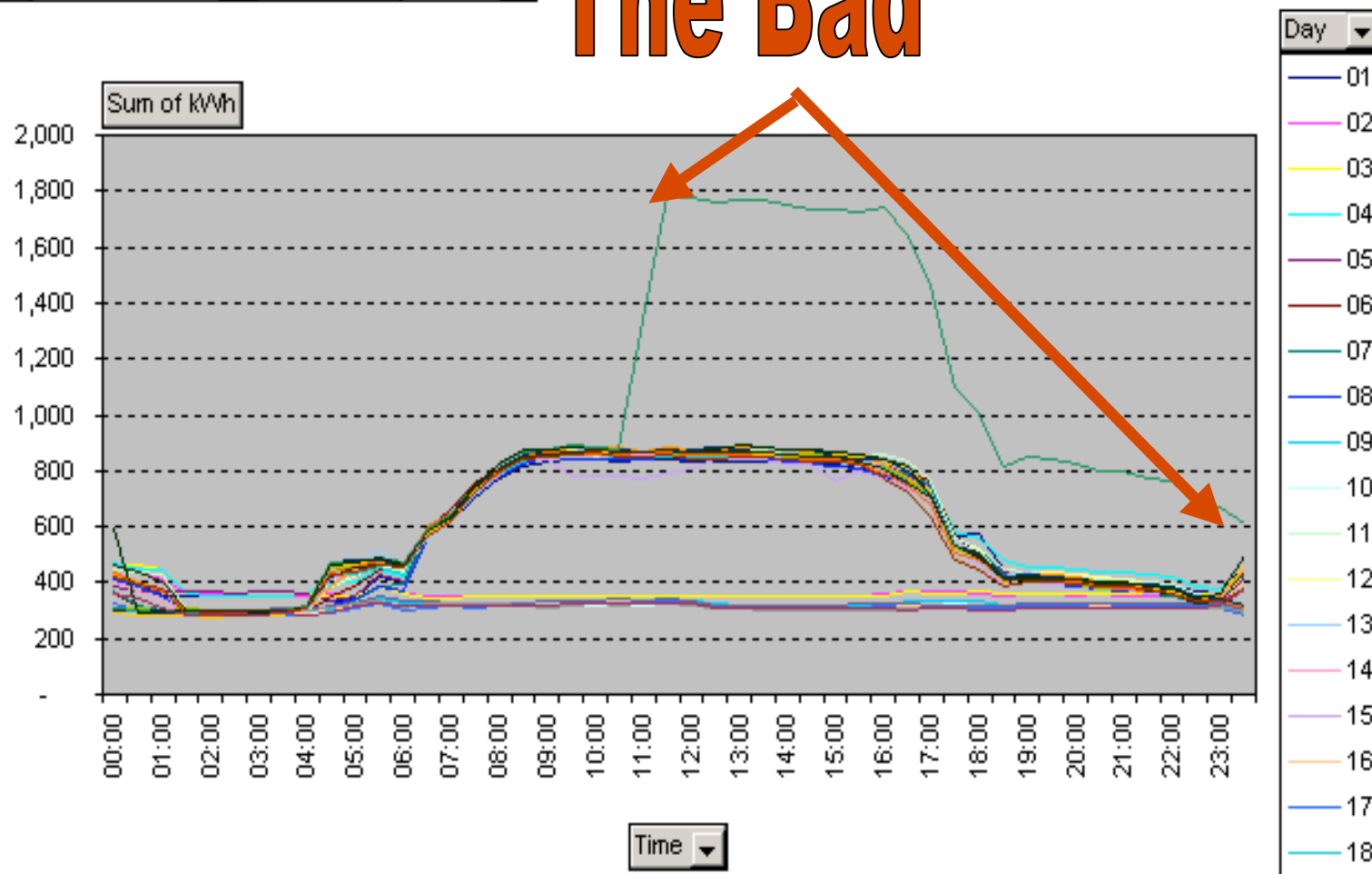
The Good





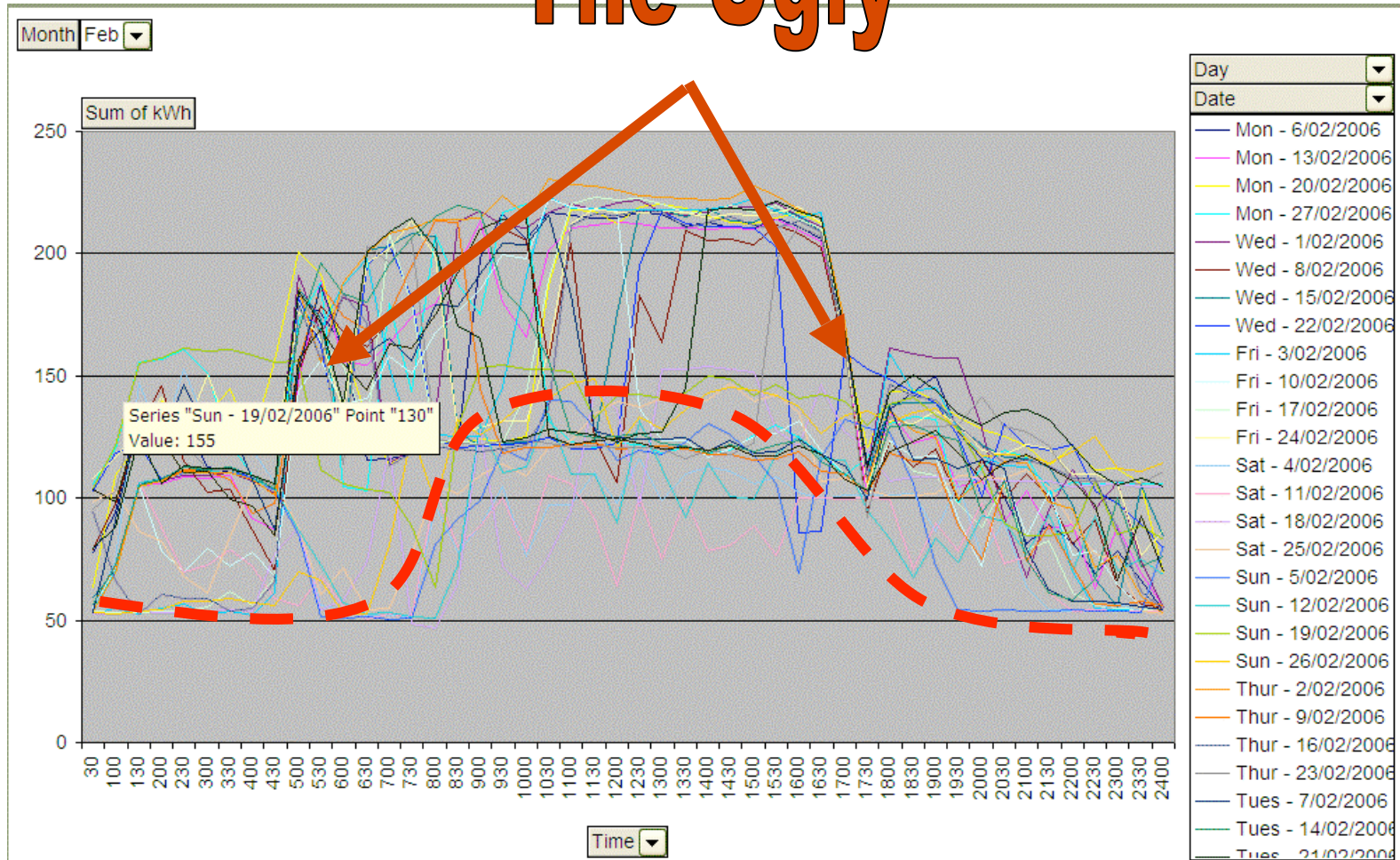
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The Bad





The Ugly





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Green Lease Impacts

Supply chains are being positively impacted and made accountable especially in the areas of:

- **Consultancy Services** (Legal/Tenant Advocates/energy services)
- **Technical Services** (Fit out, Engineering, Architects, lighting)
- **Property Management** (owners/agents/tenants)
- **Supply contracts** (metering, electricity, cleaning, water)
- **Maintenance Services** (actual Facility Managers performance is now monitored and managed to the energy star rating)





Lessons learnt so far

■ Myths

- Buildings are always adequately commissioned
- Energy consumption is not important
- Good maintenance maybe all about no complaints!
- It's designed at 4.5 stars ABGR and it will perform at that!
 - Significant increase in cost for the owner/tenant
 - Too many reports to read
 - Collaboration won't work with owners and tenants



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Questions.....Thank you

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