Energy and Greenhouse Gas Legislation – an overview

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Drivers for sustainability reporting

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Regulatory Requirements

- **National Greenhouse and Energy Reporting Act 2007 (NGERs)**
  - Requires all GHG emissions (from electricity and gas consumption)
  - Fuel use
  - Refrigerants
  - Incidental emissions (estimated) – lawn mowers, fire hydrants, diesel generators
  - Registration 31 August 2009 – First report 31 October 2009
- **Energy Efficiency Opportunities Act 2006**
  - Requires all energy consumption to be identified in addition to any energy efficiency initiative with a payback period of 4 years or less
- **Mandatory Disclosure (proposed legislation)**
  - Requires mandatory NABERS Energy certificates for Base building and Tenancies disclosed at every transaction (sale, lease)
- **Montreal Protocol**
  - Requires the phase out of all R11 by 2010 and R22 completely by 2020 (staged reduction prior to this

NGERS Reporting Thresholds

Notes: TJ = terajoule (10^{12} joules) of energy consumed or produced; kt = kilotonne (10^6 kilograms) CO_2-e equivalent of greenhouse gases emitted. Conversion factors: Energy—1 terajoule = 1000 gigajoules, 1 gigajoule = 1000 megajoules, 1 megajoule = 1000 kilojoules, 1 kilojoule = 1000 joules; CO_2-e emissions—1 kilotonne = 1000 tonnes, 1 tonne = 1000 kilograms.

Energy Efficiency Opportunities Act (EEO)

- Requires large energy-using businesses to identify, evaluate and report publicly on cost effective energy savings opportunities.
- Participation is mandatory for corporations that use more than 0.5 petajoules (PJ) of energy per year.
- 0.5 petajoules of energy is roughly equivalent to:
  - An annual energy bill of more than $3-4 million for gas,
  - $6-11 million for electricity or
  - $18-21 million for diesel fuel
  - Or139,000 MWh, 13 ML diesel, 9000 tonnes of LNG or 10,000 tonnes of LPG.
- There are more than 220 registered corporations

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Mandatory Disclosure – proposed legislation for 2010/11

- Proposes that all commercial office buildings (where NLA is > 2,000sqm) 'declare' their energy efficiency performance using:
  - A Building Energy Efficiency Certificate (BECC) – required to be reviewed annually (potentially a NABERS Energy Base Building Rating)
  - Energy Efficiency Assessment Report (EEAR) – a summary report identifying opportunities to improve the energy efficiency- valid for 7 years
- Must be disclosed in any advertisement about the sale or lease
- The proposed legislation has also considered NABERS Energy Tenancy Ratings or alternatively a lighting intensity measurement

In the absence of certainty why rate?

- NABERS energy ratings are an industry recognised benchmark that requires the capture of all base building energy performance information
- Gathering this information starts the process of good record keeping and,

  - WHAT GETS MEASURED GETS MANAGED

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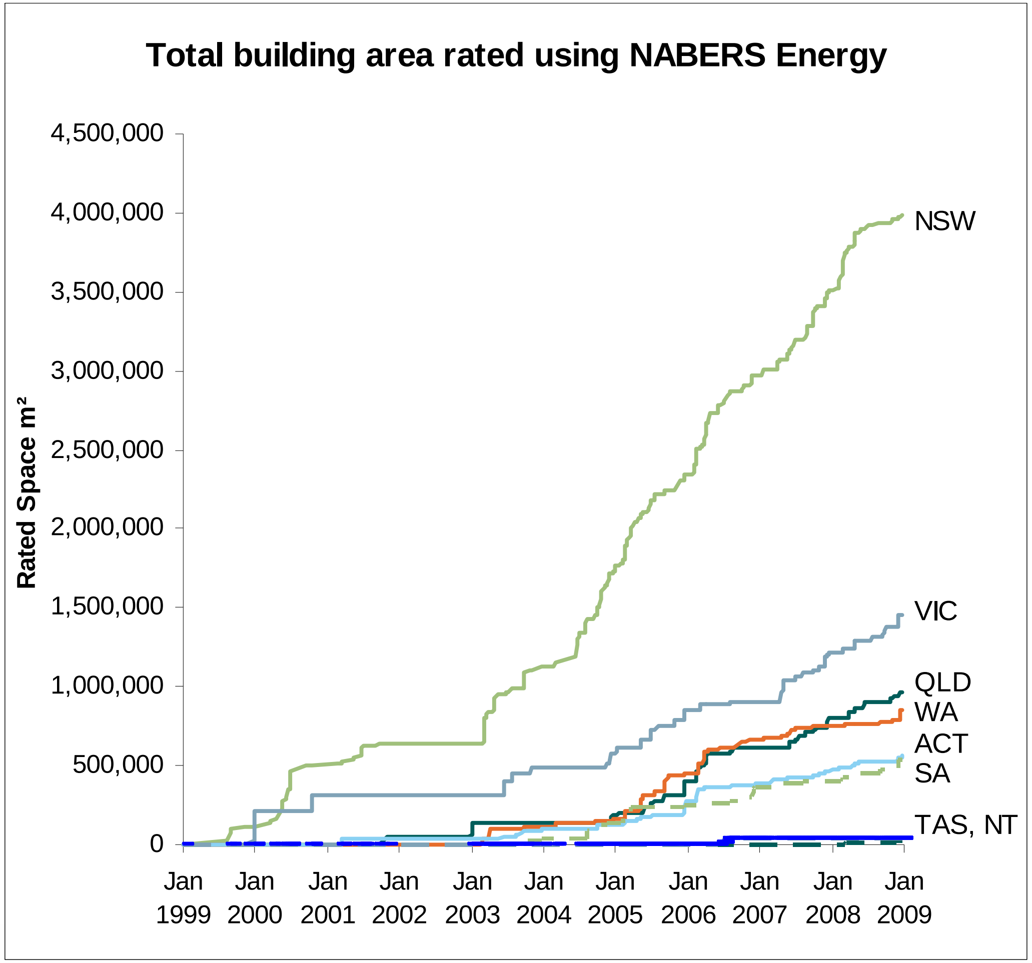
Current level of ratings



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NABERS Base Building Energy Ratings

Measures energy and greenhouse gas performance using:

Information required	Source
One year of energy bills	Electricity, gas and diesel **accounts**
Green Power allocation	Green power account
NLA (office space only)	**Surveys** (must reference either PCA 1997 or BOMA method of measurement) **Leases** (vacant areas are deducted from the NLA)
Hours of use	Lease documentation – hours of service A/H Air con – can be deducted
Climate zone	Post code

- Base building rating
  - **HVAC, lifts, common area lights**
- Tenancy rating
  - Tenant light and power, supplementary tenant air conditioning

Green Power

- <u>Current situation</u>
- Ratings are reported including the Green Power portion as the headline rating with a reference to what the rating would be without Green Power underneath the rating

- <u>Mandatory Disclosure Proposal</u>
- The emphasis is changed so that the 'reported' rating is the result <u>without</u> Green Power. Be mindful of buildings that have significant Green Power allocations

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Rules of thumb

- Gather the data – do you have all the utility bills?
- Ensure the on-site team is well versed in what is required
- Identify areas that can be excluded from the rating as soon as possible
    i. Retail areas
    ii. Public car parks
    iii. Ensure house power is only house power
- Ensure your leases specify ‘hours of service’
- In the absence of hours of service, do you have trend logs from the BMS?
- Ensure you have PCA or BOMA compliant surveys for all NLA
- Ask the assessor what is affecting the rating and discuss the elements of the rating – learn how to improve the performance
- Sanity check – if you know you have an inefficient building but it rates at 4 stars query it and vice versa

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