



THE SUMMER Energy and Management


<h3>Energy</h3> <ul style="list-style-type: none">- Conditional Requirement – average 7 stars AccuRate (different from V1 which now has 10% improvement over regulated requirement, which is 4 stars average in WA)- Issues for our project- 7 star “hurdle” required changes to building fabric/insulation etc (even though the building was already very efficient)- Metering requirements required dedicated electronic metering/monitoring system or BMS to get full points- Need to provide appliances as part of base building to get credits	<h3>Management</h3> <ul style="list-style-type: none">- Commissioning has increased focus on handover documentation- Issues for our project- Struggled to find an economical solution to “smart metering”- Use of a BMS was not practical for the scale of the project- Had difficulty with relevance of commissioning requirements, building tuning and commissioning agent role- Building is simple with simple services, no property manager for ongoing mgt- Strata Company with Multiple owners at practical completion, not necessarily on site (could be investors with tenants)
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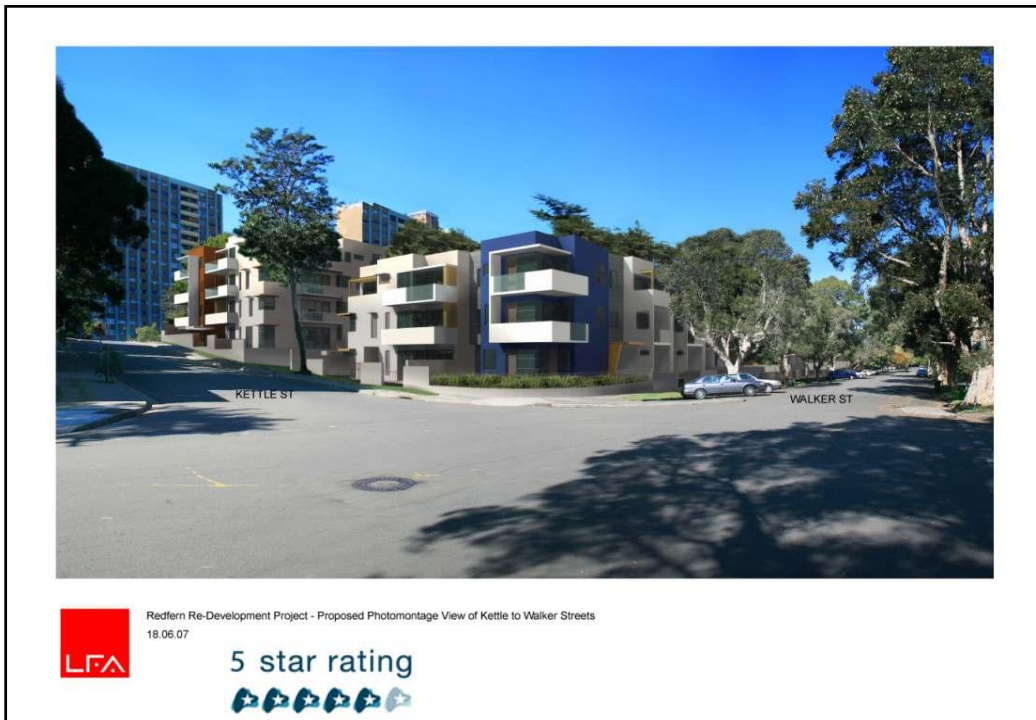
 WSP Lincoln Scott



REDFERN NSW

- Housing NSW demolished ten old 3 storey walk-up apartment blocks to build 40 2-4 bed terrace houses, with 4 3-4 storey apartment blocks on the four corners of the site (66 units in all)
- Reuse of brownfield land, rather than development of a greenfield site, helped towards the Five Star Green Star rating, as did the reuse of as many materials as possible from the original site

 green building council australia





REDFERN NSW

- The design used natural cross-ventilation strategies to achieve efficient cooling, has solar hot water systems to reduce energy bills and has photovoltaic cells on some roofs
- There are also systems to re-use greywater for irrigation, and recycle rain-water for residents' washing machines and toilets
- Indigenous and homeless people were engaged as part of the construction works to involve them in the process of this revitalisation project and up-skill them in the green technologies installed on site



CONVESSO VIC

- One of the two residential towers which have shared facilities at podium level; the first tower will be built then, once sold, the second tower constructed
- There is also a retail component with restaurants which form less than 20% of the project
- Facilities include a pool, spa, gym, function room, off-street parking and a communal garden with compost bin, worm farm and vegetable garden
- They also have a metering system in each apartment, that monitors the energy and water use 'live'







CONVESSO VIC

- They have supplied the most energy efficient appliances for all the apartments
- Units rely on natural cross-ventilation and mechanically-assisted ventilation to cool them
- They have high levels of natural light in almost all of the rooms, reducing energy bills and benefitting from views
- This is being marketed as higher-end luxury apartments, and so forms an interesting comparison between the cost and the value of the two affordable housing developments



LILYFIELD NSW

- This is another development for NSW Housing tenants, comprising of six buildings and a total of 88 units; Housing NSW are excited about the potential to build more green buildings for low-income housing tenants
- Once Housing NSW began designing the development and investing time into Green Star, they pushed the design and ESD initiatives further in order to secure a Five Star rating and exceed BASIX requirements
- Construction was delayed as Asbestos was found on site and site remediation works were required, spending over \$1m on decontamination and remediation







LILYFIELD NSW

- All 88 apartments are naturally cross ventilated and there is no air conditioning in the development
- Most bathrooms have naturally ventilated bathrooms and laundries; external drying racks are provided to all dwellings, reducing dependency on electric drying
- Ceramic tiled living areas are provided to assist in creating desirable thermal mass, with low-E glass to all east and west facing façades to reduce heat gain in summer
- Double glazing has been installed to all windows in order to reduce heat loss in winter



LILYFIELD NSW

- Solar-powered general area lighting, solar hot water systems, and rainwater tanks will be installed
- They have provided no on-site car parking in the development as limited on-street parking, buses and light rail public transport are all available
- The design of the development features a large central courtyard, providing tenants with a secure and private open space for socialising, and communal garden facilities provide tenants with the opportunity to grow vegetables
- Measures are in place to recycle 80% of C&D waste

