ARC HOUSING INNOVATION PROJECT – QUT &...

HOW CAN WE USE DATA TO IMPROVE OUR HOUSING SUPPLY CHAIN / CULTURE?

ePlanning Data reports

NSW Planning & Environment

BASIX Building Sustainability Index

Data Type: Multi-dwelling houses | **Theme:** Thermal Comfort | **Sub-theme:** NatHERS Equivalence (Average by dwelling)

Region: Hunter | **Council:** All Councils | **Suburb:** All Suburbs

Default Table Text

Year	4 or less		5		6		7		8 or more	
2009/10	249		651		407		814		101	
2010/11	44		217		503		596		244	
2011/12	39		272		514		379		169	
2012/13	95		548		768		527		81	
2013/14	193		894		1,009		527		286	
TOTAL	620	6.1%	2,582	25.5%	3,201	31.6%	2,843	28%	881	8.6%
All NSW	9,887	5.5%	55,111	30.6%	71,413	39.6%	36,779	20.4%	7,015	3.9%

DISCUSSION 3:

How can building information be used to assess economic value?

How can building information be used to drive industry innovation?

How can building information be used to support end-user decisions?

How do these stakeholders access the information they need (time and cost saving)?

The NEEBP
National Energy Efficient Buildings Project

Managed by the Department of State Development (SA) on behalf of all jurisdictions as part of the National Strategy on Energy Efficiency

NEEBP Framework

- One-off project endorsed by Select Council on Climate Change (SCCC) 16th November 2011
- Funded from Commonwealth and all jurisdictions through Dept. Industry & Science (DOI&S)
- SA leads the project with active input from Project Reference Group (PRG) representing building EE expertise from state & territory and local government
- Project reports provided to E2 Buildings Committee through Energy Productivity Branch (Res. Buildings) of DOI&S
- NEEBP commenced mid-2013 and concludes mid-2015

The NEEBP set out to investigate, understand & influence

- Apparent discrepancies in anticipated energy efficiency between building as designed and building when lived in
- Common points of non-compliance with the energy efficiency requirements of the National Construction Code (NCC)
- Effectiveness of regulations nationally in delivering consistent energy efficient alterations or additions
- Strategies to catalyze and support all players in the building cycle (concept to key) to achieve EE compliance with the NCC and ultimately to deliver energy efficient building stock

NEEBP Phase 1 – learn & interpret

- Phase 1 undertook industry and agency consultation through Australia-wide ***workshops*** (20), ***survey*** (600), formal ***submissions*** (50) and open ***dialogue*** (1000 plus)
- Pitt & Sherry - Swinburne University of Technology managed 3 projects collaboratively to understand:
  1. Key systemic or process weaknesses and common points of non-compliance
  2. Issues specific to achieving consistent energy efficiency in Alterations and Additions
  3. Role of industry knowledge and skills in delivering building energy performance and NCC compliance

NEEBP Phase 1 Report

- NEEBP consulted with over 1000 people in all jurisdictions – planners, designers, assessors, Local Government, builders, trades, product suppliers, etc.

  NB: Stakeholder bias was overwhelmingly residential buildings.

  - Many positive trends in premium end of housing market
  - High star rating/zero-net-energy homes are becoming more available and more affordable
  - Solar energy technologies are accepted and utilised more
  - NABERS & Green Star firmly adopted in Commercial Sector
  - New generation of design & construction workers keen on Energy Efficiency

NEEBP Phase 1 Report

- From the same 1000 stakeholders nationally we also heard frank, remarkably consistent and disturbing messages:
  - GFC = slimmer margins = cutting corners to cut costs
  - Energy efficiency is "low priority" to *most* players
  - Low EE knowledge and skills base in segments of industry
  - Impunity – risk of discovery is low and sanctions are small
  - Culture of "adverse competition" where many achieve competitive advantage through non-compliance
  - A "sign-off" culture pervades in under-resourced "tick a box" regulatory environment

Phase 2 – demonstrate & influence

- Phase 2 is delivering "on-ground" ***demonstration pilots***, ***regulatory review***, consumer ***info & change strategies***:
  1. Piloting compliance audits for residential buildings under construction
  2. Piloting EBP-based documentation control systems for EE
  3. Improving EE compliance and consistency in Alts & Ads
  4. Improving capacity of consumer protection agencies to advocate for home owners on home energy performance
  5. 2020 Steps – recommended strategic actions to achieve NCC compliance and improve building energy efficiency

Small but strategic first steps

- Every part of the building industry (policy to trades) can contribute to energy efficiency transformation through:
  - Consistent policy and interpretation of Code & regulations
  - Improved accountability and document/process control
  - Strategic, reasonable and *visible* sanctions
  - Industry capacity and skills – *enable* market differentiation
  - Consumer knowledge and consumer advocacy
  - Raised householder expectations of built energy efficiency

(ie: NEEBP Phase 2 Projects)

The longer trek to 2020

- NEEBP presents 36 detailed recommendations in 4 key areas:

➢ ***Be clear about what is at stake (metrics, data)***

Global awareness of benefits (& costs) of robust EE regulation

➢ ***Get the incentives right (market differentiation)***

Progressive Code/Regs set the benchmark & The Market rewards

➢ ***Deliver quality outcomes (know-how & accountability)***

Quality audits, EBP/BMS & info control, mandatory CPD/capacity

➢ ***Empower the community (transparency & value)***

Develop a framework for consumer protection & enforcement

Your NEEBP "to do" list

- *Read the NEEBP Phase 1 Report in detail*
- *Consider the 36 key recommendations to inform your "action plan"*
- *Use the "knowledge gap analysis" to plan capacity building activities*
- *Access the Swinburne "EE Knowledge Register"*
- *Get involved in our Phase 2 Projects*
- *Contact me: Sabina.Douglas-Hill@sa.gov.au*