



# Are Living Labs an emerging opportunity for engagement?

**Presenters: Roger Attwater**

**Chair: Bob Burnell**

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# DEVELOPING INTEREST

# *Living Labs*

## THEME STORM

### Literature review – international examples

- > “Collaborative testing of solutions in a living social environment...”
- > “Stakeholder and end users involved in a process of co-construction...”

### Environmental sustainability: campus assets

- > Teaching, research and engagement
- > Multidisciplinary and strategic focus





# VINEYARD CREEK

## *Living Lab*

### PARRAMATTA SOUTH

Hidden remnant of natural and cultural heritage

- > Series of ecological communities
- > Conrad Marten and River Peppermint





# VINEYARD CREEK

*Living Lab*

## PARRAMATTA SOUTH

Hidden remnant of natural and cultural heritage

- > Habitat of the Burramatta eels
- > Indigenous resource



# VINEYARD CREEK

## *Living Lab*

### PARRAMATTA SOUTH

#### Maryella and Communication Arts

- > Videography and critical conversations

#### Brenda and Environmental Education

- > Context and bush regeneration





# SOLAR & URBAN HEAT *Living Labs*

## KINGSWOOD

### Modular renewable energy options

- > 100 kW rooftop PV and batteries
- > Solar carpark structure (underway)
- > EV charging pilot (TBA)

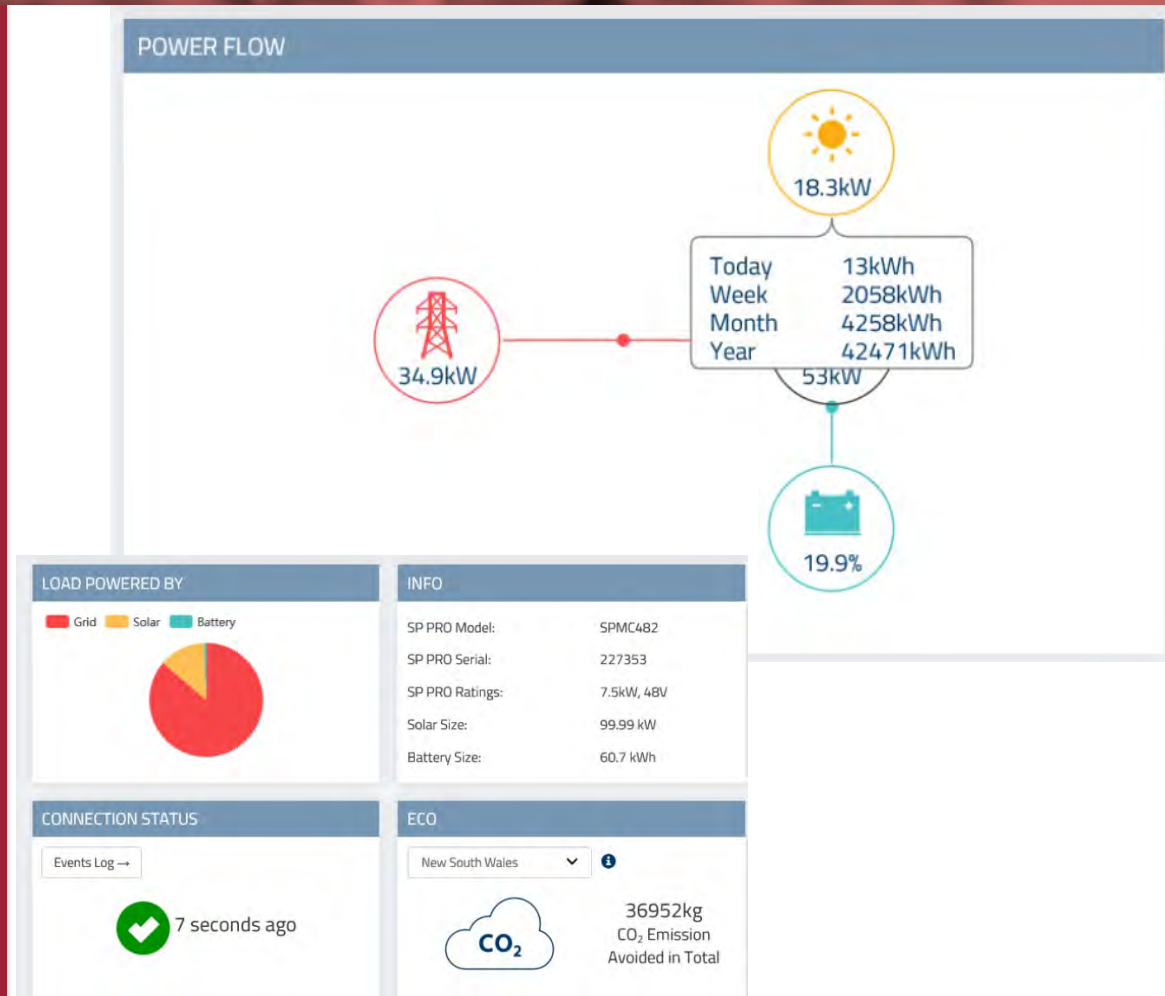


# SOLAR & URBAN HEAT *Living Labs*

## KINGSWOOD

Ali and Tosin, Electrical Engineer /  
Tech Services

- > 100 kW rooftop PV and batteries
- > Demonstration and optimisation

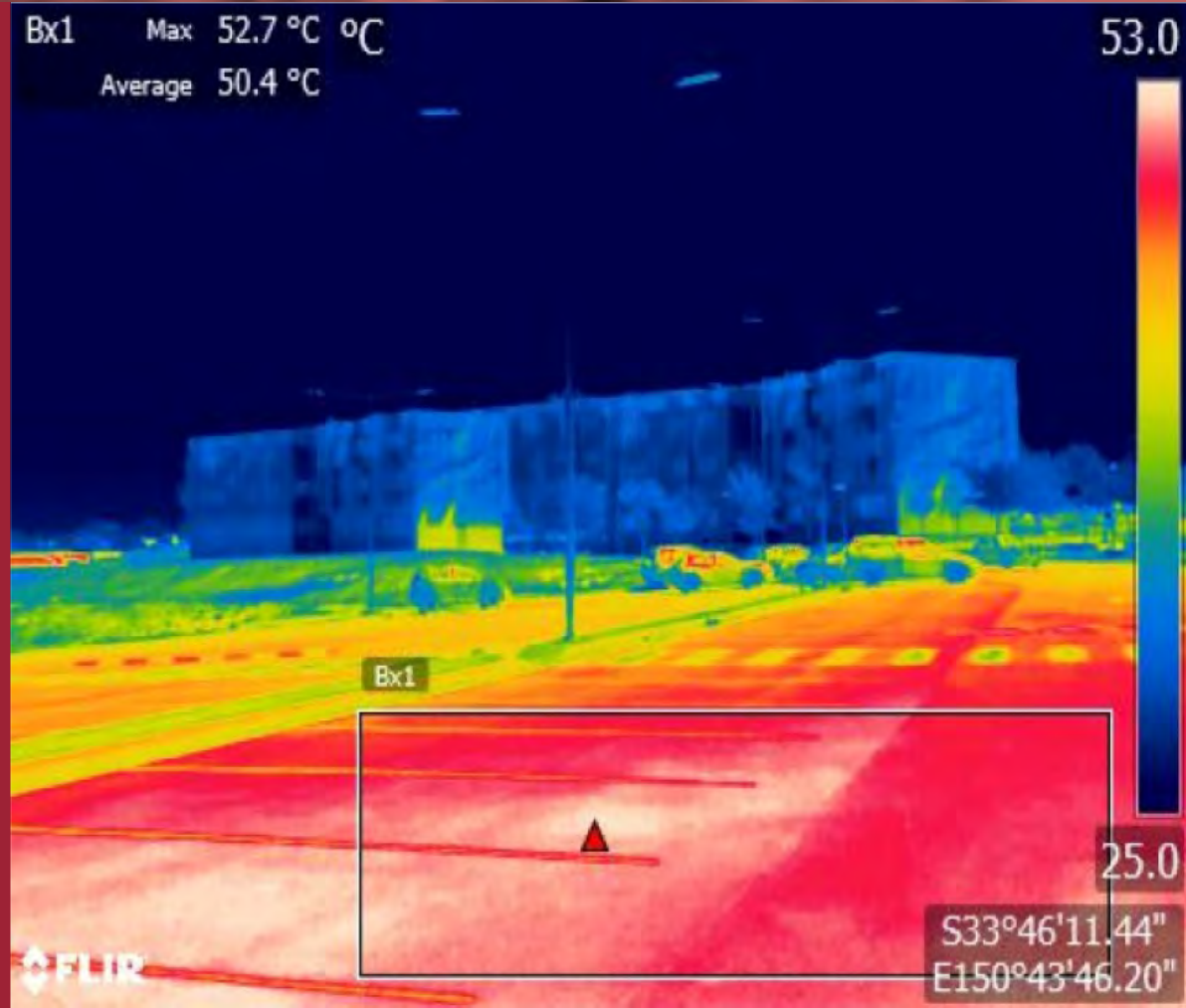


# SOLAR & URBAN HEAT *Living Labs*

## KINGSWOOD

### Sebastian and urban heat

- > Carpark cooling
- > Safety through design, accessibility





# PERI-URBAN

## *Living Labs*

### HAWKESBURY

#### Best practice peri-urban landscape management

- > Sustainable and regenerative agriculture
- > Water recycling and stormwater harvesting
- > Coordinated WSU / TAFE / STEM pathways





# PERI-URBAN

# *Living Labs*

## HAWKESBURY

Priti and Sue, Science

- > Chinese medicinal herbs
- > Indigenous plants





# PERI-URBAN

# *Living Labs*

## HAWKESBURY

Chris, Sharen, Science and  
Sydney Water

- > Stormwater wetlands
- > Nutrient offsets



# PERI-URBAN

# *Living Labs*

## HAWKESBURY

Richard, Science and  
The Yield

- > Precision agriculture
- > IoT, data and prediction





# PERI-URBAN

## *Living Labs*

### HAWKESBURY

Students, Animal Science

- > Student show team
- > Peer mentoring



# EMERGING OPPORTUNITIES

# *Living Labs*

## ENGAGEMENT STRATEGY

Accessibility and breadth of  
campus resources

- > Embedded in living social context
- > Institutional, technical, ecological and cultural





# EMERGING OPPORTUNITIES

# *Living Labs*

## ENGAGEMENT STRATEGY

### Teaching and learning resources

- > Citizen scholarship and professional practice
- > Generative / emergent inquiry
- > Academic, technical and operational staff



# EMERGING OPPORTUNITIES

# *Living Labs*

## ENGAGEMENT STRATEGY

### Collaboration / Multidisciplinary

- > Sustainability outcomes
- > Graduate attributes
- > Strategic partnerships





# EMERGING OPPORTUNITIES

# *Living Labs*

## SDGs

### United Nations Sustainable Development Goals

- > Environmental Sustainability Action Plan
- > 2030 targets



# www.westernsydney.edu.au/livinglabs

## WEB SITE

- › Agri-Industry
- › Agro-Ecology
- › Bushfire Unit
- › CO2 Concrete
- › Energy Modelling
- › Green and Food Waste
- › Hawkesbury Farm
- › IoT and BIM
- › IoT Precision Agriculture
- › Medicinal Herbs
- › Peri-Urban
- › Resilience Roadshows
- › Responsible Events, Offices and Cafes
- › Show Team
- › Solar Engineering
- › Urban Heat
- › Vineyard Creek
- › Water Recycling
- › Werrington
- › Wetland Monitoring
- › Which Plant Where?

The screenshot shows the Western Sydney University website's Environmental Sustainability page. The header includes the university logo and navigation links for Future Students, Students, International, Research, Alumni, and MyWestern. A secondary navigation bar lists various university services. The main content area is titled 'ENVIRONMENTAL SUSTAINABILITY' and features a 'Living Labs' section. On the left, there is a sidebar menu for 'OEC' (Office of Environmental and Community Engagement) with links to services, forms, sustainability topics (Living Labs, Action Plan, Hawkesbury Farm, Publications), contractor information, contact, and work notices. The main content area includes a large image of people in a field, a paragraph describing Living Labs as collaborative partnerships, and a call to action to explore Living Labs using links on the right-hand panel. On the right side, there are three prominent red buttons: 'Living Labs', 'Action Plan', and 'Hawkesbury Farm'. Below these is a 'Living Labs' list with links to various initiatives: Agri-Industry, Agro-Ecology, Bushfire Unit, CO<sub>2</sub> Concrete, Energy Modelling, Green and Food Waste, Hawkesbury Farm, IoT and BIM, IoT Precision Agriculture, Medicinal Herbs, Peri-Urban, Resilience Roadshows, Responsible Events, Offices and Cafes, Show Team, Solar Engineering, Urban Heat, Vineyard Creek, Water Recycling, Werrington, Wetland Monitoring, and Which Plant Where? At the bottom right, there is a small red logo of a plant in a flask and social media icons for Twitter, Facebook, LinkedIn, and YouTube.



*Living Labs*

**Roger Attwater**

**Questions ?**

[www.westernsydney.edu.au/livinglabs](http://www.westernsydney.edu.au/livinglabs)