

MEI Seminar Series

Seminar #2:

Solar Power and The Energy Transition

29 April 2026



THE UNIVERSITY OF
MELBOURNE

Melbourne
Energy
Institute

Speaker:

Jessamine Welsh

Sustainability Manager

Spark-North East Link-D&C

Moderator:

Prof. Rebecca Yang

Professor, Doreen Thomas Fellow

Dept of Infrastructure Engineering

Faculty of Engineering and
Information Technology

University of Melbourne

MEI Seminar Series 2026



Seminar topic	Month
1. Sustainability of Mining Energy Transition Minerals	March
● 2. Solar Power and The Energy Transition	April
3. Offshore Wind	May
4. Advances and Challenges in Carbon Capture	June
5. Resilient grids for high penetration of renewables	Aug
6. The Future of the Australian Car Market: Policy, Competition, and Electrification	Sep
7. The case for fusion - Cleantech commercialisation	Oct

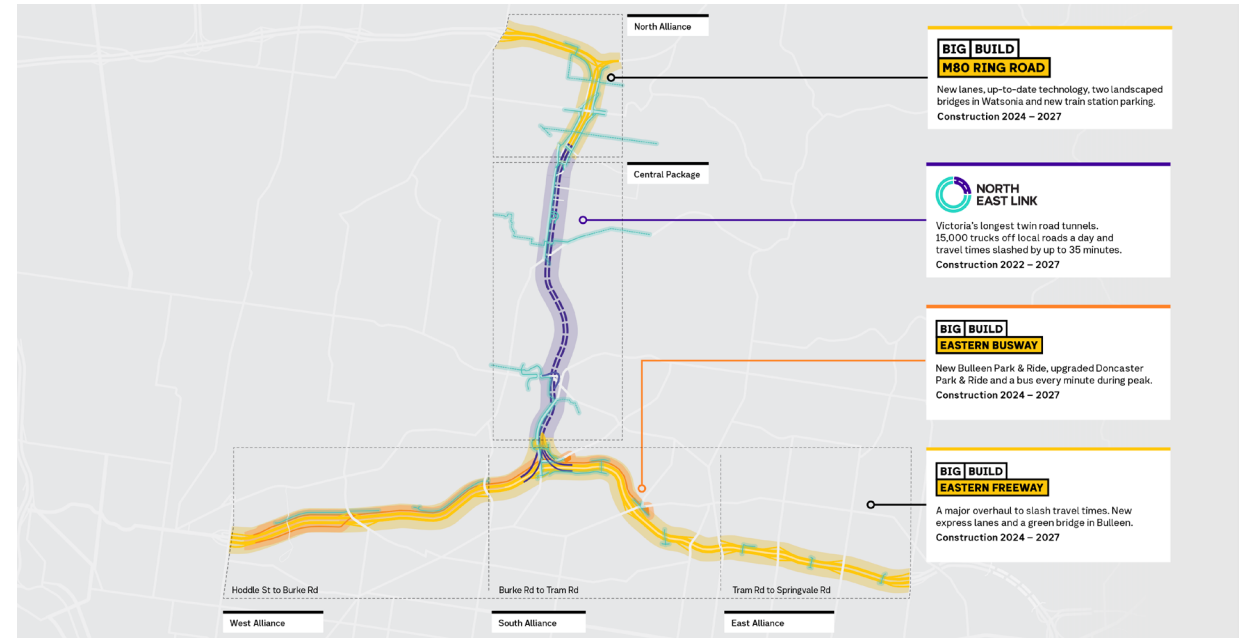
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Introductions



Jessamine Welsh

Sustainability Manager



- Twin, three-lane tunnels 6.5km long
- Three key interchanges
- 35 hectares of high quality public open spaces
- New 2km tree-lined boulevard for Greensborough Road
- A green land bridge
- New ancillary infrastructure and buildings
- Operation of the asset for 25 years

Why Solar Matters

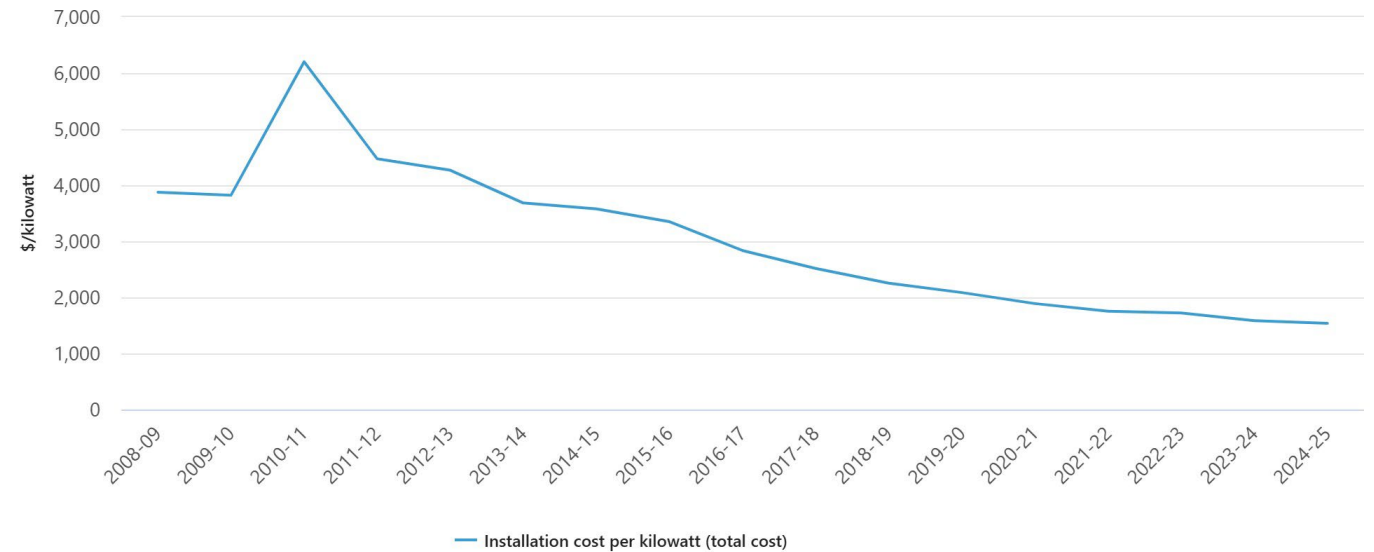


Solar = Fastest growing renewable

Cost declines → increased ambition

Critical to Net-Zero Pathways

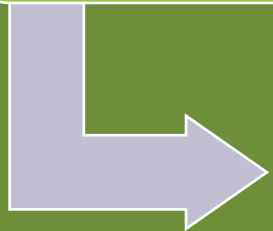
Graph 3. Solar panel installation cost per kilowatt, annual original



Source: Australian Bureau of Statistics, Household solar electricity generation in the Australian national accounts 3/12/2025

The Challenges at Delivery

We know solar
as central to
decarbonisation



We have the
technology



*What's slowing
scale and how
to fix it?*



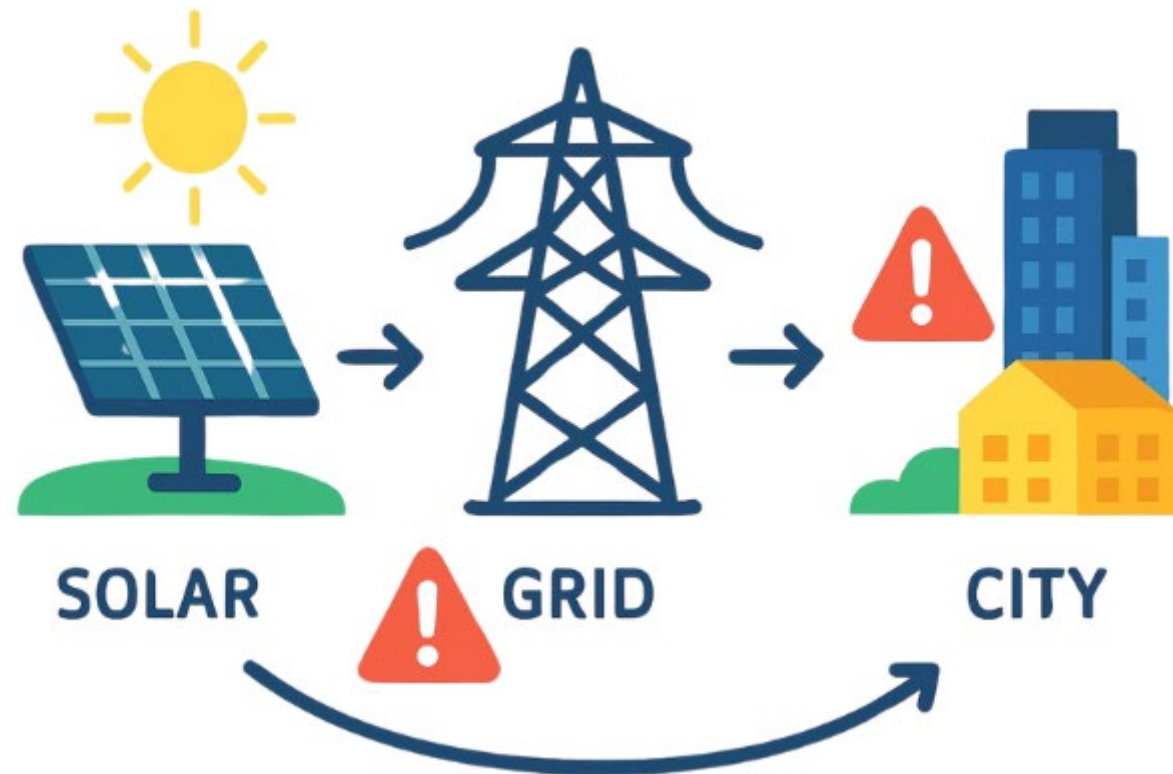
The Core Problem

Scaling solar is not just about capacity

Planning

Integration

System Coordination



So, What can we do?

Early Planning is Critical



**Integrate solar from
project outset**

**Align with
infrastructure + grid
capacity**

**Avoid late-stage
redesigns**



Planning →



Design →



Construction →



Operation

Stakeholder Engagement & Collaboration



AS/NZS 5033:2021

Installation and safety requirements for photovoltaic (PV) arrays

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee EL-042, Renewable Energy Power Supply Systems and Equipment. It was approved on behalf of the Council of Standards Australia on 27 October 2021 and by the New Zealand Standards Approval Board on 03 November 2021.

Published: 19 November 2021

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History: Originated as AS/NZS 5033:2005.
Previous edition 2014.
Fourth edition 2021.

Committee: EL-042

Committee members: Australasian Fire and Emergency Service
Australian Energy Council
Australian Energy Market Operator
Australian Industry Group
Australian PV Institute
Better Regulation Division (Fair Trading,
Clean Energy Council
Clean Energy Regulator
Communications, Electrical and Plumbing
Consumer Electronics Suppliers Associati
Consumers Federation of Australia

Department of Transport and Planning

SECTION 765 - NOISE ATTENUATION WALLS

##This section cross-references Sections 160, 168, 175, 204, 610, 611, 630, 631, 685, 686, 715, 812 and V676.
If any of the above sections are relevant, they should be included in the specification.
If any of the above sections are not included in the specification, all references to those sections should be struck out, ensuring that the remaining text is still coherent.

765.01 DESCRIPTION

This section covers:

- (a) The requirements for the supply of materials of noise attenuation walls (noise walls) panels which are manufactured from concrete, steel, composite, masonry or wood. It does not cover panels manufactured from plastic or gabions.
- (b) The requirements for the erection of all noise walls.

In project-specific cases where noise walls are not required, this specification may be used for the supply of plywood panels for landscaping, fencing or aesthetic purposes (i.e. clause 765.05 is not required).

The supply of materials of noise walls using plastic panels, including those manufactured from recycled plastic must be in accordance with Section V676.

The supply and construction of gabions must be in accordance with Section 715.

The Department of Transport and Planning (DTP) was formerly known as the Department of Transport (DoT) and VicRoads. DTP documents that must be complied with include all relevant DoT and VicRoads documents.

765.02 REFERENCE

Documents referred to in this Standard Section are listed in Table 765.021. Section 175 details the relevant references to these documents.

Table 765.021: Referenced Documents

Australian Standards, ISO & ATIC	
AS/NZS 1163	Cold-formed structural steel hollow sections
AS 1191	Acoustics - Method for laboratory measurement of airborne sound transmission insulation of building elements
AS 1366.2	Rigid cellular plastics sheets for thermal insulation - Rigid cellular polyisocyanurate (RC/PIR)
AS 1366.3	Rigid cellular plastics sheets for thermal insulation - Rigid cellular polystyrene - Moulded (RC/PS - M)

Grid Challenges at Scale

More solar = more complexity

Our grid wasn't designed for distributed, variable generation

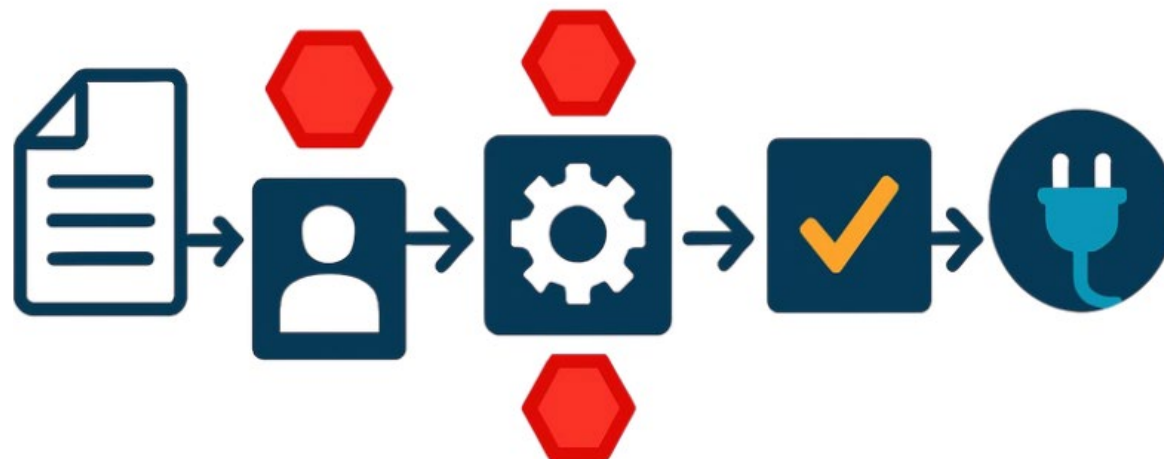
Reliability becomes a central concern



Investment, Policy & Regulatory Barriers



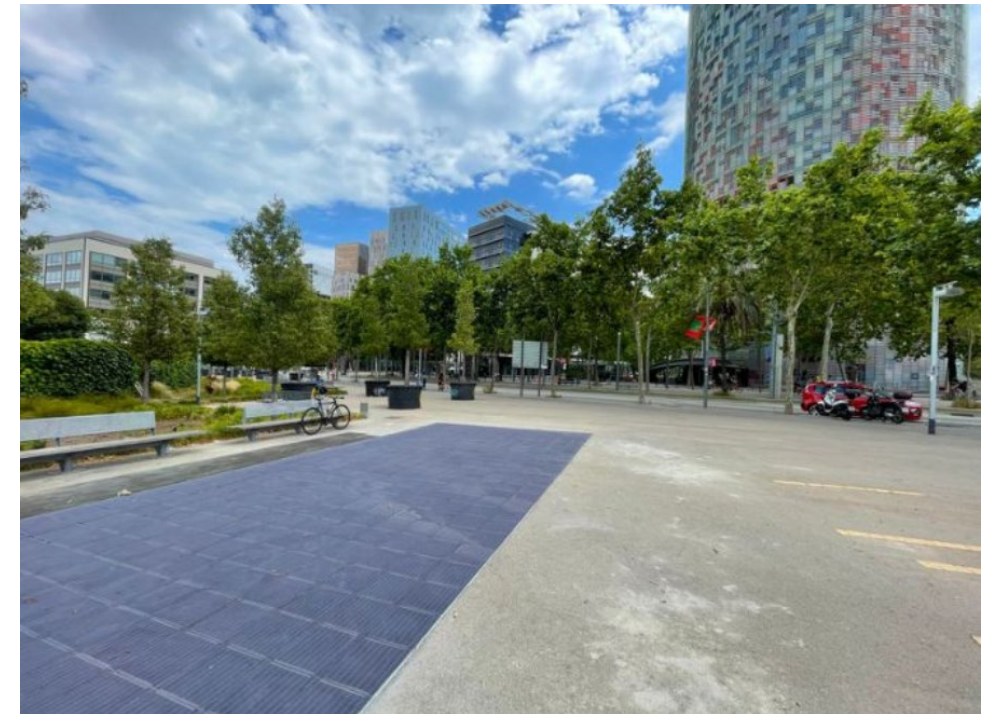
Clean energy Australia Report 2025



Innovation, Proof of Concept & De-risking



Concept → Trial → Demonstration → Commercial

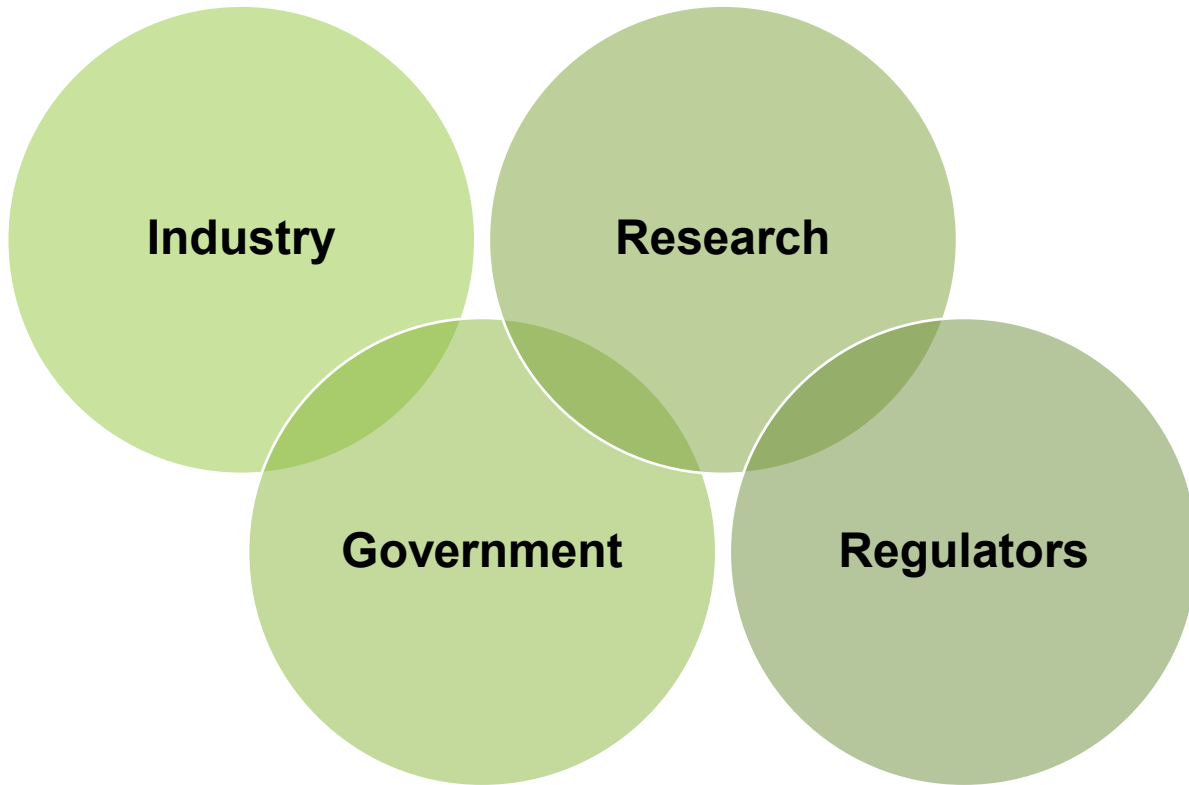


When Collaboration Pays Off

- The establishment of Australia's first Indigenous-owned energy retail company
- Use 100% GreenPower during construction.
- Partnership between Alinta Energy and Yurringa Energy.
- Clear market signalling to preference collaboration with Yurringa Energy through tender process.
- Decision supported by shared value economic assessment.
- Now being replicated across the country



Thank you



Q & A

energy.unimelb.edu.au

Melbourne Energy Institute

Level 1, Melbourne Connect

700 Swanston Street, Carlton, VIC 3053



mei-info@unimelb.edu.au



@MEIunimelb



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