

# Energy Productivity Innovation Collaborative

“ A cooperative effort of the business, researchers and innovators working with Government to double Australia's energy productivity by 2030. ”



**Stuart White**

2016 Summer Study on Energy Productivity



## Australian Energy Productivity Roadmap

Towards a more efficient and competitive Australia

“ The cleanest megawatt hour [is] the one we never need, and the most secure barrel of oil the one we never burn. It is also often the cheapest, and the easiest to achieve...”

*Marie van der Hoeven, Executive Director, International Energy Agency*

**UTS:ISF**  
INSTITUTE FOR SUSTAINABLE FUTURES

**AUSTRALIAN ALLIANCE TO SAVE ENERGY**



**ClimateWorks AUSTRALIA**



**AGL**  
Energy in action.®

Proudly Australian since 1837.

**AiGROUP**

**Australian Chamber of Commerce and Industry**

**energetics**

**energy efficiency COUNCIL**

**EnergyLab**  
Australia's CleanTech Laboratory



**Australian National University**

**ATSE**

**CLEAN ENERGY COUNCIL**

**enVIZI**

**CEFC**  
CLEAN ENERGY FINANCE CORPORATION



**asbec**  
AUSTRALIAN SUSTAINABLE BUILT ENVIRONMENT COUNCIL



**VEOLIA**

**AUSTRALIAN LOGISTICS COUNCIL**

**ALLIANCE TO SAVE ENERGY**  
*Using less. Doing more.*

**Schneider Electric**

**Lend Lease**

**ISCA**  
Infrastructure Sustainability Council of Australia

**sba**  
Sustainable Business Australia

**inflection point**  
CAPITAL MANAGEMENT

**EUA ENERGY USERS ASSOCIATION OF AUSTRALIA**

**pacificnational**

**WATER SERVICES ASSOCIATION OF AUSTRALIA**

**CEO**  
A meeting of minds

**LINFox**

**CITY OF SYDNEY**

**VISY**  
FOR A BETTER WORLD

**ENERNOC**

**TECHNOLOGY VENTURE PARTNERS**

**Green Energy Trading**

**nsw FARMERS**

**ICANZ**  
THE RIGHT INSULATION MATTERS

**COFELY**  
GDF SUEZ

**ARA**  
Australian Refrigeration Association

**AUSTRALIAN INSTITUTE OF ENERGY**

**nbn**

# 2016 AUSTRALIAN SUMMER STUDY ON ENERGY PRODUCTIVITY

*empower a brighter tomorrow*

Energy Efficiency • Demand Management • Distributed Generation • Renewable Energy • Innovation



Australian Government  
Department of Industry and Science

24-26 Feb 2016  
Manly Beach, Sydney, Australia  
[www.summerstudy.org.au](http://www.summerstudy.org.au)

# Towards 2030...



Include **ENERGY** in  
productivity  
agenda

↑ GDP, jobs and tax  
revenues

↓ Energy spend  
and ↑ ROI

+ Cleaner  
environment

## Globally competitive



By 2030:

2.8% ↑ in real GDP

GDP per capita ↑ ≈ \$2000

Energy spend ↓ ≈ \$30 bn

Emissions ↓ 20%

↓ Balance of payment impact

↑ Energy security

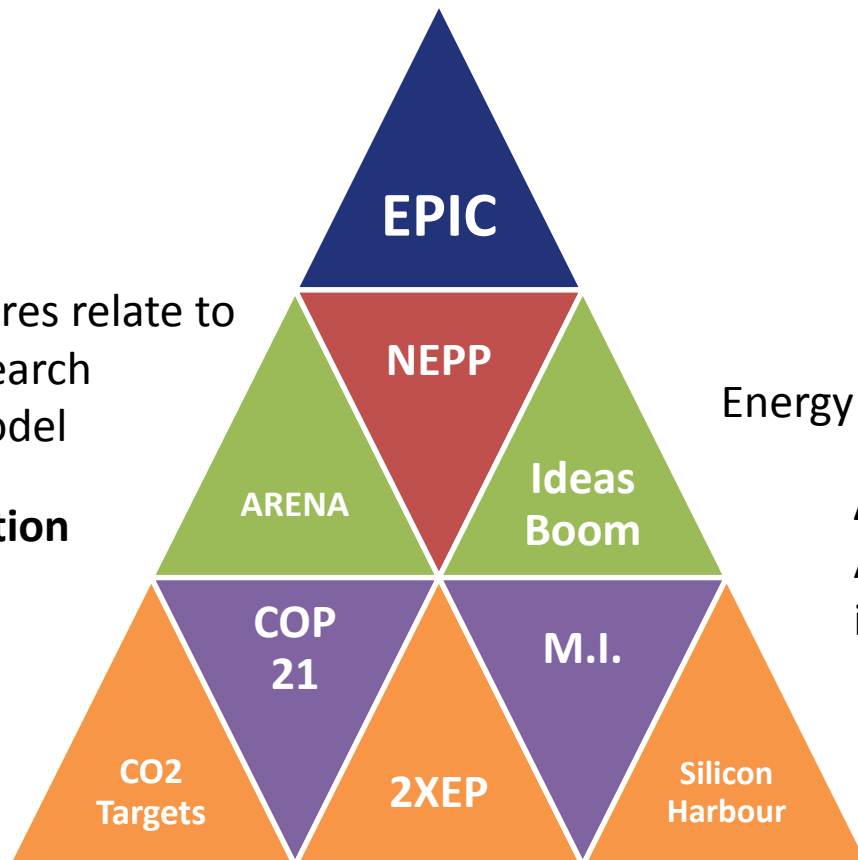
# Context

## NEPP:

- 9 of 34 NEPP measures relate to Innovation and Research
- Energy Use Data Model

**NISA: National Innovation & Science Agenda**

**Net zero emissions by 2050**



## 2XEP:

Energy Productivity Roadmap

## ARENA:

A-Lab focused on integrating renewables

## Mission Innovation:

Doubling Australian clean energy research

# Context

**UKERC**  
UK Energy Research Centre  
Researching pathways to a low carbon future



 **Precourt Energy Efficiency Center**

 **UC DAVIS**  
ENERGY EFFICIENCY CENTER

**UNEP RISO CENTRE**  
ENERGY, CLIMATE AND SUSTAINABLE DEVELOPMENT

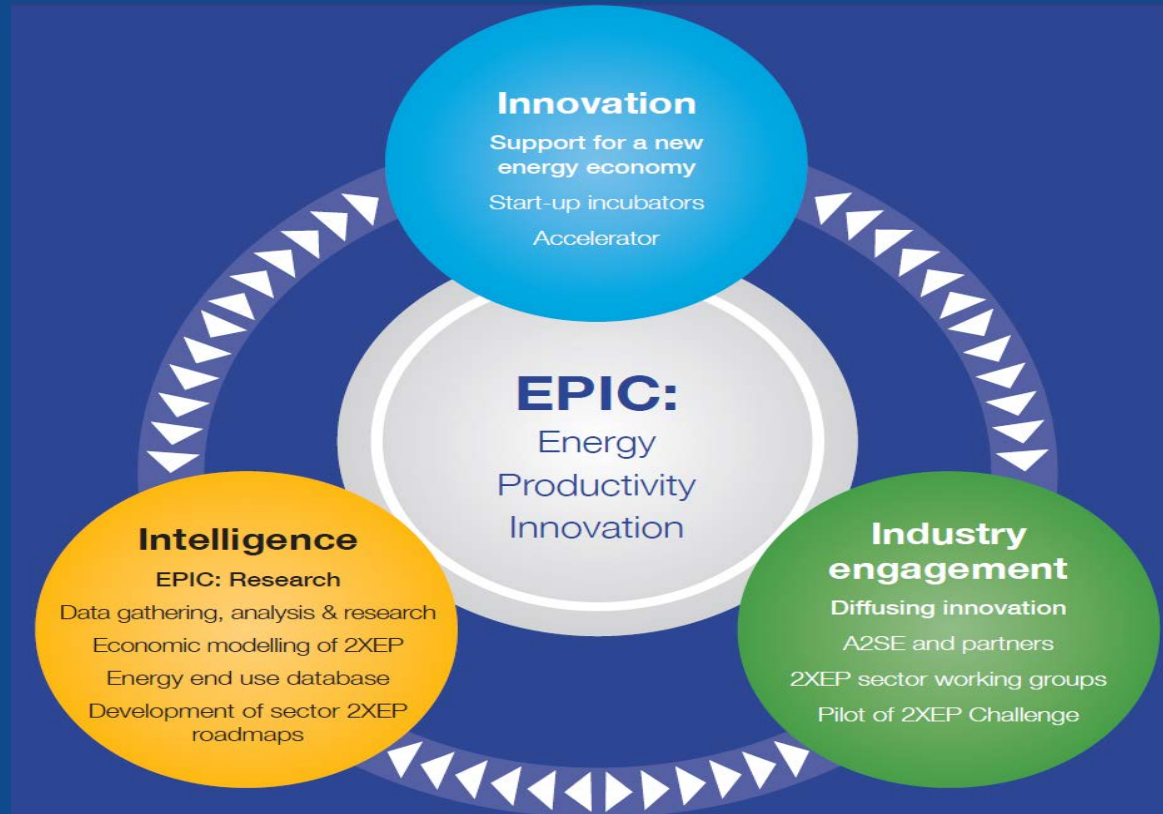
 **Wuppertal Institute**  
for Climate, Environment  
and Energy

 **ECCJ**  
The Energy Conservation Center, Japan

**Centre for Industrial  
Energy Efficiency, China**



# Energy Productivity Innovation Collaborative



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## Driving an energy productivity revolution

THEME	Know: <b>Intelligence</b>	Change: <b>Innovation</b>	Act: <b>Industry Engagement</b>
FOCUS	Research, data & market analysis	EnergyLab Incubator & Accelerator	A2SE: 2XEP Roadmap process
OUTCOMES	Drive reform and continuous improvement	New jobs and businesses	Lifting EP in Australia

# Energy Productivity Innovation Collaborative

## Goals

- Reduce costs & increase value of energy services
- Grow the economy and jobs
- Reduce carbon emissions
- Enhance energy security
- Support NEPP and NISA



# EnergyLab

Australia's CleanTech Laboratory

EOI for innovators and entrepreneurs

[www.energylab.net.au](http://www.energylab.net.au)

# Energy Productivity Innovation Collaborative

## CRC-P Opportunity

- New CRC focus on smaller, industry focussed “Programs” (CRC-P)
- “Improve the competitiveness, productivity and sustainability of Australian industries...in line with Government Priorities”
- Applications due: 17 March 2016



Australian Government  
Department of Industry,  
Innovation and Science



NATIONAL INNOVATION & SCIENCE AGENDA

INNOVATION.GOV.AU

# Energy Productivity Innovation Collaborative CRC-P:

## A coordinated Research Program to deliver major economic benefits

	1. KNOW: Intelligence & Review	2. CHANGE: Innovation & Opportunities	3. ACT: Engagement & Implementation
ECONOMIC IMPACT	1.1 Best Practice Review  1.2 EP Industry Survey	2.1 Modelling EP Scenarios	
INDUSTRY IMPROVEMENT	1.3 EP Sectoral Benchmarking  1.4 <i>Barriers Analysis (optional)</i>	2.2 Decentralised Energy Statement of Opportunities  2.3 Emerging Technologies	3.1 Sectoral Roadmaps  3.2 2XEP Challenge Pilot  3.3 Green Button Australia
NEW ENTRANTS		2.4 <u>EnergyLab</u>	3.4 Innovation Diffusion

# Energy Productivity Innovation Collaborative

## Next steps

- Partners invited for this exciting initiative:
  - To partner in the Energy Productivity Innovation Collaborative
  - To contribute to the CRC-P proposal
- Please contact Jon Jutsen, Chris Dunstan or Stuart White