

seed



advisory



**ClimateWorks**  
AUSTRALIA

## **Unlocking Barriers to Cogeneration**

**Presentation to AEMC  
16 November 2011**

# About ClimateWorks Australia



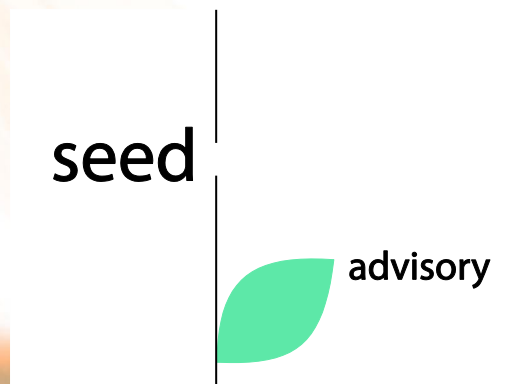
ClimateWorks Australia is a non-profit organisation created in 2009 by The Myer Foundation & Monash University, focused on enabling practical projects to deliver emissions reductions in Australia.



**MONASH** University

# About Seed Advisory

Seed Advisory is a commercial advisory firm specialising in the energy sector, with expertise in strategy, risk management, policy development and commercial management.



## Barriers in the connection process

- Case-by-case approach; each distributor follows a different connection process; not many are published
- Lack of transparency in information required
- Misaligned decision-point milestones between electricity network owner and commercial cogen project owner
- Uncertain timeframes
- Lack of common contract terms
- District-level projects face further barriers to connect multiple sites

## Costs of connection process

- Delays in process
  - Can be up to a year for small projects and 2.5 years for large projects
  - Commercial building developments require timeframe of 1-3 months, with 6 months max
- Technical network studies and potential equipment upgrades
- Costs of anticipating and then reworking designs
- Potential redesign after distributor requirements received later in process, possibly lowering performance and efficiency

This project set out to design solutions that could be implemented in the short term, based on real commercial project experiences



- Collaborative, commercially-based approach:
  - six 'live' commercial projects as case studies:
    - commercial scale cogeneration plants that would otherwise be ready to ready to commence within one year, but for barriers
  - working group that includes customers, market participants, regulators, operators and policymakers
- Aim:
  - Design a solution that is relevant to all in the portfolio, moving beyond one-off approaches to a standardised approach
- Start with cogeneration
  - 'cogeneration' includes tri-generation
  - potential to extend to renewable embedded generation as many of the issues are common

## Participatory format brought together ‘live’ cogeneration projects with distribution businesses and government

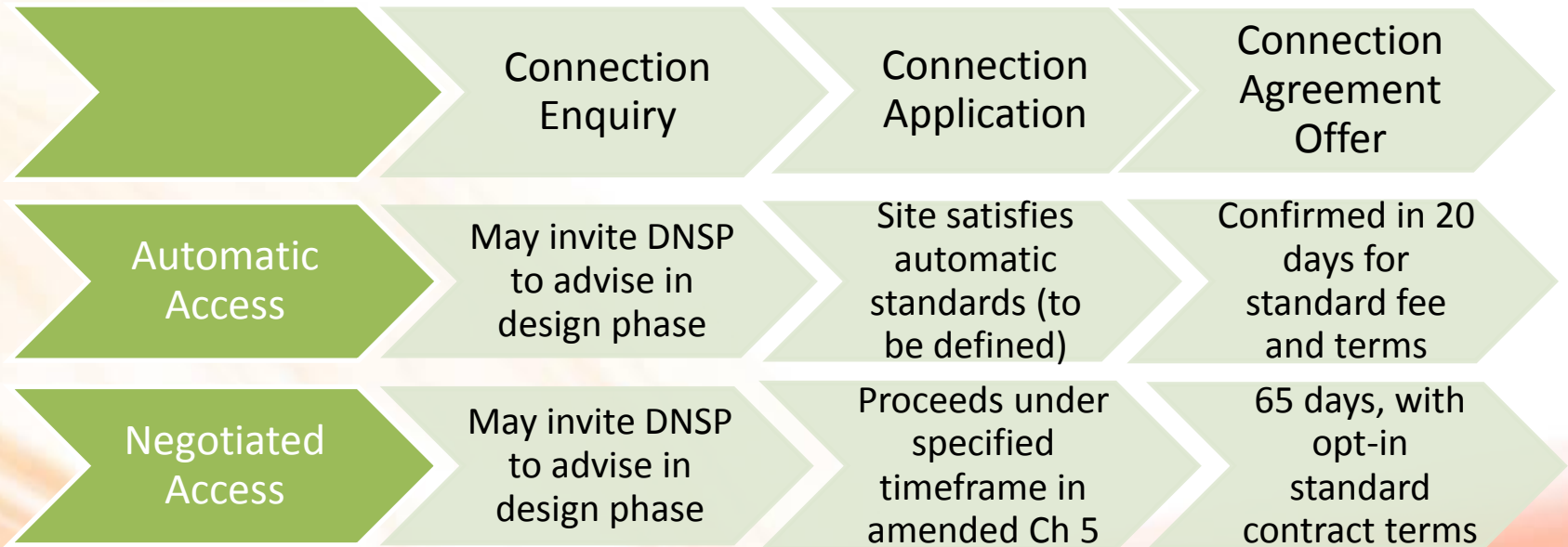


Organisation	Role
Colonial First State Management Services	Case Study owner – CBD office building
Crown Melbourne	Case Study owner– CBD casino hotel & retail site
Leighton Properties and the APN Group	Case Study owner– CBD office building
Monash University	Case Study owner– University faculty building
Moreland Energy Foundation	Case Study owner– community centre site
VicUrban	Case Study owner– greenfield development site
Aurecon	Cogeneration engineering consultant
Cogent Energy	Cogeneration plant provider
CitiPower	Electricity distributor
United Energy	Electricity distributor
Origin Energy	Electricity retailer
Property Council of Australia – Vic Division	Property industry advocate
Australian Energy Market Operator (AEMO)	Government agency – manager of the NEM
Australian Energy Regulator (AER)	Government agency – regulates the wholesale energy market and transmission & distribution networks in the NEM
Victorian Department of Business & Innovation	State Government Department
Victorian Department of Primary Industries	State Government Department
Sustainability Victoria	State Government agency

- streamlining the process of connection is the short-term priority
  - improving the economics is a longer term issue
- timeframes, common contract terms, improved interaction with distributors earlier in the project design and connection application process
- mindful of the previous work that has been done
- rule change proposal
  - building on existing National Electricity Market framework in Chapter 5, and the new Chapter 5A
- engaging with current market consultations to ensure consistency with proposed rule changes and use existing channels to implement remaining solutions

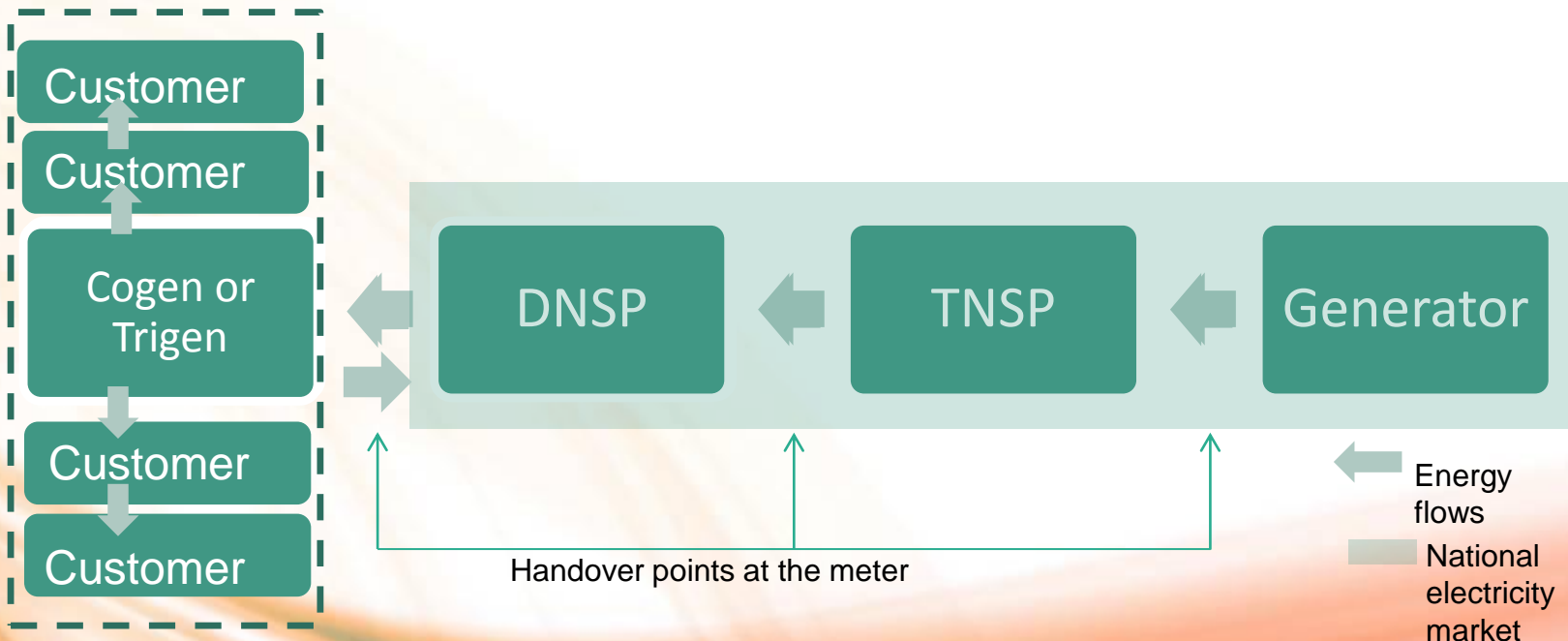
# Proposal 1 – standardising the connection process (Rule Change)

- Extend automatic right to connection to cogen (similar to rooftop solar PV)  
→ standard fee, time and terms for projects meeting automatic standards
- Allow DNSPs to be paid a fee-for-service to engage with designs earlier  
→ to help avoid information imbalance and prevent later redesign work
- Require DNSPs to publish annual ‘exceptions’ reports on network constraints  
→ to help eliminate surprises in network connection costs
  - *How? via Rule Change to Chapter 5*



## Proposal 2 – multi-site connections (AEMO and AER discussions)

- Allow ‘subtractive metering’ to enable owners with contiguous sites to ‘net off’ production against consumption across all sites before payment to market  
→ensures related party sites can be treated as if one site
  - *How? via AEMO discussions re demand side aggregation*
- Allow multi-site developments to become ‘registrable exempt networks’  
→removes uncertainty around individual exemptions
  - *How? via AER consultation on network service provider exemptions*



- Share the findings nationally, before submitting National Electricity Market rule change to Chapters 5
  - Encouraging a broad coalition in favour of the proposed changes and prepared to advocate on their behalf
  
- Respond to formal rule change process
  - two rounds of consultation by AEMC over approx 12-18 months
  
- Make submissions to upcoming reviews (eg AER)
  
- Continue working group discussions to maintain industry input
  - focus areas include policy advocacy, technical standards, tool kits



**THANK YOU**

**Report is available at: [www.climateworksaustralia.org](http://www.climateworksaustralia.org)**