



Planning



# Planning for small wind in NSW

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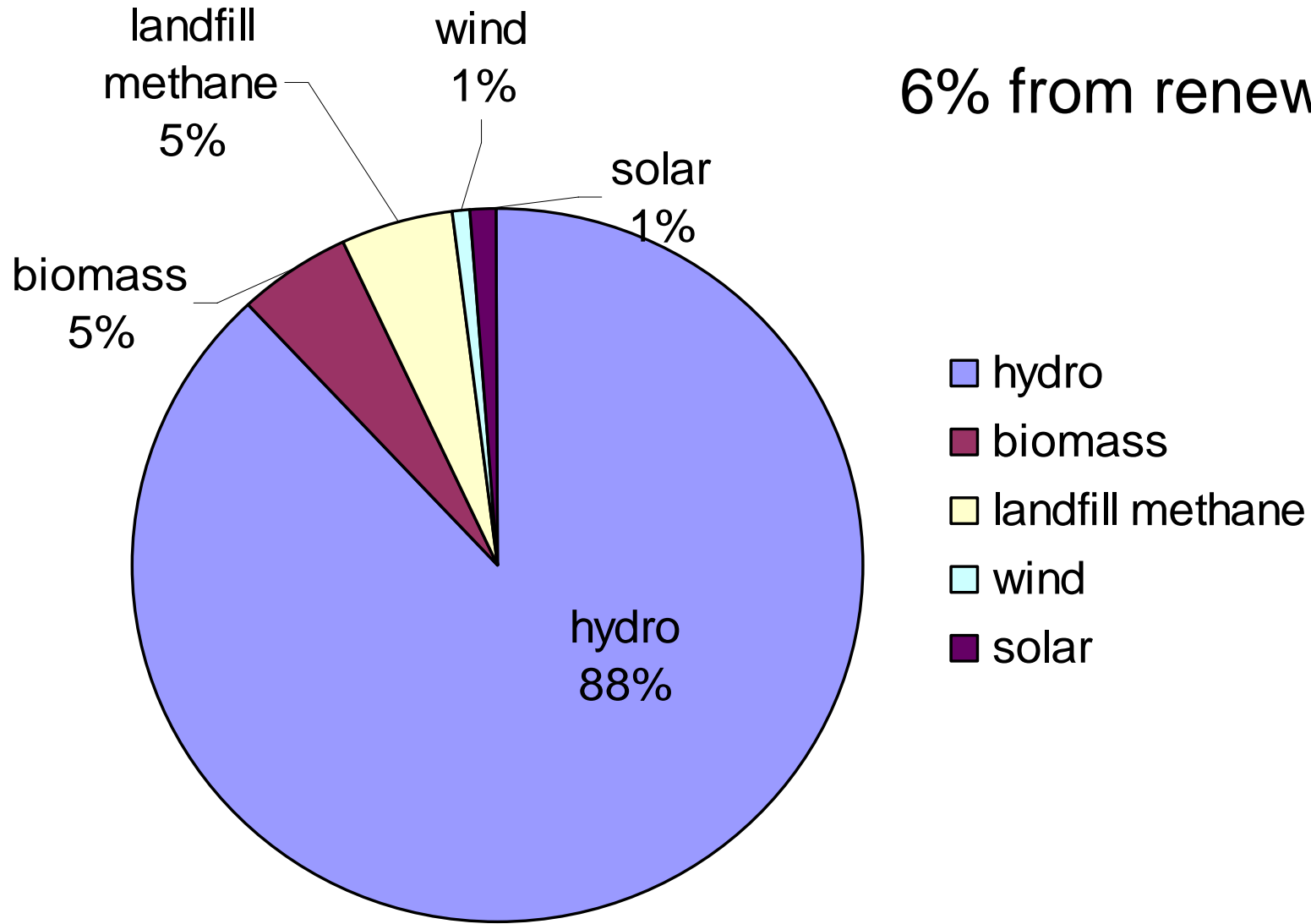
Specialist Planner (Policy, Planning Systems & Reform)

*Victorian small wind industry round-table event*

27 April 2011

- State and federal initiatives will drive significant investment in renewable energy 2010-20
- NSW ‘next frontier’ – but reforms required to facilitate renewable energy development
- NSW initiatives to maximise renewable energy investment – planning reforms are key

# NSW renewable energy generation



- Small wind & solar
  - Solar Bonus Scheme: 60¢ per kwh – most generous in Australia
  - Planning reforms
- Community renewable energy
  - NSW Community Renewable Energy Handbook
- Commercial projects
  - 20% target in NSW State Plan
  - Planning reforms
  - Renewable Energy Precincts
  - Solar Flagships – supporting NSW bids
  - Solar precincts – feasibility
  - Renewable Energy Development Fund (\$40 million)
  - Bio-energy – action plan under development



- Wind is a key player
- Limited community understanding
  - opportunities
  - impacts
  - technical issues (eg micro-siting)
  - planning requirements
- Fledgling industry / market in NSW
- Time, cost, complexity, uncertainty associated with planning approvals is a barrier



# Planning reform objectives

- Streamline planning approvals
- Make it easier to install small wind systems
- Protect local & environmental amenity



# Council controls

Council	Glenn Innes Severn	Oberon	Upper Lachlan	Goulburn Mulwaree
Precinct	Northern	Western	Southern	Southern
Setback from house	2 km	1.5 km	2 km	0.35 km
Setback from road	T. height x 2	T. height + 20%	T. height x 2	
Public notification	5 km	2 km	5 km	
Visual	✓	✓	✓	✓
Viewing Area	✓	✓	✓	
Noise	✓	✓	✓	✓
Flora & Fauna	✓		✓	✓
Shadow Flicker	✓		✓	
Blade Glint	✓			
EMR	✓		✓	
Turbine Arrangement	✓		✓	
Road impacts	✓		✓	
Heritage			✓	
Bushfire	✓			
Aviation				✓
Community Consultation	✓			
Community Enhancement	✓		✓	

## Local, regional & state planning instruments

- Local
  - *Local Environment Plan (LEP) + Development Control Plan (DCP)*
    - Variation between councils
- State
  - *State Environmental Planning Policy (Infrastructure) 2007*
    - Applies state wide – consistent approach
    - Overrides council controls
    - Small solar exempt and complying
    - Wind exempt in rural zones
    - Wind monitoring towers exempt
    - Renewable energy infrastructure permissible with consent in a range of rural, industrial and special use zones



- New 10-day approvals ('complying development')
  - All land use zones covered
  - Tick box approach
  - No consultant studies
  - No public notification / exhibition
  - Approval by council or third party certifier
  - 5-10 times faster + cheaper than merit assess
  - No merit legal appeals
  - Applies state-wide
- Expand existing 'exempt' provisions
  - Rural zones
- <60kW 'permitted with consent' on any land

# Proposed 10-day approvals

- Ground & building mounted
- Applies state-wide
- Standards vary according to zoning
- Turbines <10 kW
- Maximum combined generating capacity – 60kW or 10kW
- Height limits (ground mounted systems) – 15m, 18m, 25m
- Height limits (building mounted systems) – 3m above roof line
- Noise setbacks 25m, 40m, 126m, 200m
- Turbines independently tested
- Clear from power lines
- Heritage excluded
- Cannot involve removal / pruning vegetation



# Proposed exempt development

- No planning approvals required
- Rural land use zones
- <10kW
- 1 turbine per lot
- 200m setback
- 25m height limit
- Clear from power lines
- Cannot involve removal / pruning vegetation
- Heritage not excluded



# Proposed permitted with consent

- <60kW permitted with consent by any person on any land
- Overrides council prohibitions
- Merit assessment required (usually council)
- Includes public notification / exhibition
- Appeal rights



- Dwelling setbacks related to sound power levels
- Bruel and Kjaer *Environmental Noise* (2000)
  - Can estimate sound pressure level at a given distance when sound power level is known
  - Re-arranged formula to calculate distance so sound pressure level is below 40dB(A) when sound power level is known
  - 40dB(A) adopted from SA's *Wind Farm Noise Guidelines*
- Sound power levels must be specified by an independent testing body

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For a point source with sound power level,  $L_W$  (see section on Environmental Noise Parameters and Terminology), located near the ground, the sound pressure level ( $L_p$ ) at any distance ( $r$ , in m) from that source can be calculated from the equation:

$$L_p = L_W - 20 \log_{10}(r) - 8 \text{ dB}$$



- Sound
  - cumulative issues
  - reflection in urban areas
  - tonality
    - fluttering and furling
- Aviation?
  - *eg “not located within X km of an airport unless the turbine does not penetrate any obstacle limitation surface shown on any Obstacle Limitation Surface Plan prepared by the operator of an airport or aerodrome”*
- Installed by an installer ‘endorsed’ by the Clean Energy Council

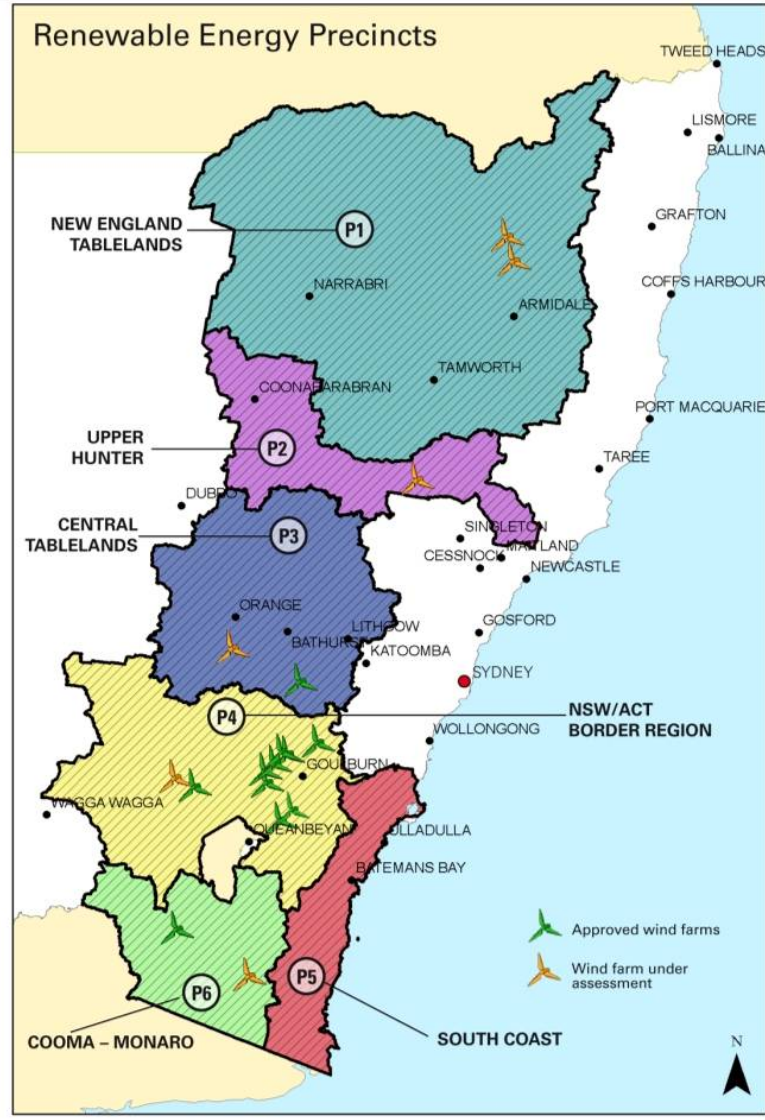
# Complementary initiatives

- NSW Wind Precincts
- Regional co-ordinators
- Small wind workshops in July / August





# Renewable energy precincts



# Thank you

Written submission welcome

Due by 28 May to [innovation@planning.nsw.gov.au](mailto:innovation@planning.nsw.gov.au)

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