Attachment 1. INVOLVED LAND PARCELS

INVOLVED LAND PARCELS

The cadastral information for the Coppabella Hills, Marilba Hills and Carrolls Ridge sites are detailed in the tables below.

Table 1 - Detailed Property Information for Coppabella Hills

Lot/DP	Owner
2//717646	Robinson
344//753595	Weston
291//753602	Shaw
Y//382611	Swan
293//721898	Swan
274//753602	Bush
275//753602	Bush
278//753602	Bush
281//753608	Barker
285//753602	Koorynga P/L & Rawont Holdings P/L
260//753602	Arabin
268//753602	Arabin
1//593527	Sykes
2//593527	Sykes
61//753595	Sykes
31//753602	Sykes
41//753602	Sykes
42//753602	Sykes
43//753602	Sykes
86//753602	Sykes
87//753602	Sykes
88//753602	Sykes
89//753602	Sykes
90//753602	Sykes
91//753602	Sykes
92//753602	Sykes
135//753602	Sykes
137//753602	Sykes
138//753602	Sykes
197//753602	Sykes
200//753602	Sykes

Lot/DP	Owner
211//753602	Sykes
212//753602	Sykes
213//753602	Sykes
230//753602	Sykes
234//753602	Sykes
235//753602	Sykes
194//753626	Sykes
201//753626	Sykes
307//753595	Sykes
314//753595	Sykes
284//753602	Crossley
57//753595	Nils Taube Ltd
58//753595	Nils Taube Ltd
59//753595	Nils Taube Ltd
60//753595	Nils Taube Ltd
123//753595	Nils Taube Ltd
124//753595	Nils Taube Ltd
125//753595	Nils Taube Ltd
126//753595	Nils Taube Ltd
184//753595	Nils Taube Ltd
185//753595	Nils Taube Ltd
212//753595	Nils Taube Ltd
51//753626	Nils Taube Ltd
76//753626	Nils Taube Ltd
77//753626	Nils Taube Ltd
78//753626	Nils Taube Ltd
91//753626	Nils Taube Ltd
106//753626	Nils Taube Ltd
119//753626	Nils Taube Ltd
136//753626	Nils Taube Ltd
137//753626	Nils Taube Ltd
138//753626	Nils Taube Ltd
146//753626	Nils Taube Ltd
147//753626	Nils Taube Ltd
148//753626	Nils Taube Ltd
155//753626	Nils Taube Ltd
180//753626	Nils Taube Ltd
181//753626	Nils Taube Ltd
182//753626	Nils Taube Ltd

Lot/DP	Owner
183//753626	Nils Taube Ltd
184//753626	Nils Taube Ltd
186//753626	Nils Taube Ltd
222//753626	Nils Taube Ltd
1//1102090	Nils Taube Ltd
2//1102090	Nils Taube Ltd
1//364690	Hyles
2//364690	Hyles
120//753602	Hyles
122//753602	Hyles
132//753602	Hyles
134//753602	Hyles
154//753602	Hyles
159//753602	Hyles
24//753602	Whitefields Pastoral Co. P/L
25//753602	Whitefields Pastoral Co. P/L
26//753602	Whitefields Pastoral Co. P/L
46//753602	Whitefields Pastoral Co. P/L
71//753602	Whitefields Pastoral Co. P/L
84//753602	Whitefields Pastoral Co. P/L
85//753602	Whitefields Pastoral Co. P/L
136//753602	Whitefields Pastoral Co. P/L
140//753602	Whitefields Pastoral Co. P/L
188//753602	Whitefields Pastoral Co. P/L
193//753602	Whitefields Pastoral Co. P/L
210//753602	Whitefields Pastoral Co. P/L
264//753602	Whitefields Pastoral Co. P/L
266//753602	Whitefields Pastoral Co. P/L

Table 2 - Detailed Property Information for Marilba Hills

Lot/DP	Owner
108//753595	Bonnette
109//753595	Bonnette
209//753595	Bonnette
325//753595	Bonnette
341//753595	Bonnette
203//753626	Bonnette

Lot/DP	Owner
209//753626	Bonnette
20//251362	Gemwane P/L
21//251362	Gemwane P/L
22//251362	Gemwane P/L
23//251362	Gemwane P/L
24//251362	Gemwane P/L
25//251362	Gemwane P/L
173//753596	Gemwane P/L
177//753596	Gemwane P/L
186//753596	Gemwane P/L
193//753596	Gemwane P/L
199//753596	Gemwane P/L
200//753596	Gemwane P/L
201//753596	Gemwane P/L
205//753596	Gemwane P/L
206//753596	Gemwane P/L
230//753596	Gemwane P/L
273//753596	Gemwane P/L
278//753596	Gemwane P/L
299//753596	Gemwane P/L
207//753596	Payne
C//408402	Garry
D//408402	Garry
3//457026	Garry
4//457026	Garry
5//457026	Garry
6//457026	Garry
7//457026	Garry
8//457026	Garry
129//753626	Garry
175//753626	Garry
196//753626	Garry
204//753626	Garry
224//753626	Garry
291//753596	Munns
292//753596	Munns
210//878465	Munns
212//878465	Munns
B//415303	Arabin

Lot/DP	Owner
176//753626	Arabin
177//753626	Arabin
178//753626	Arabin
2//849324	Arabin
1//1108872	Garry
2//1108872	Garry
3//1108872	Garry
4//1108872	Garry
2//131969	Marilba Properties P/L
112//665719	Marilba Properties P/L
96//753595	Marilba Properties P/L
99//753595	Marilba Properties P/L
110//753595	Marilba Properties P/L
111//753595	Marilba Properties P/L
112//753595	Marilba Properties P/L
113//753595	Marilba Properties P/L
114//753595	Marilba Properties P/L
136//753595	Marilba Properties P/L
137//753595	Marilba Properties P/L
139//753595	Marilba Properties P/L
140//753595	Marilba Properties P/L
210//753595	Marilba Properties P/L
238//753595	Marilba Properties P/L
312//753595	Marilba Properties P/L
111//753626	Marilba Properties P/L
122//753626	Marilba Properties P/L
165//753626	Marilba Properties P/L
193//753626	Marilba Properties P/L
207//753626	Marilba Properties P/L
208//753626	Marilba Properties P/L
210//753626	Marilba Properties P/L
17//753633	Marilba Properties P/L
105//753633	Marilba Properties P/L
2//851327	Marilba Properties P/L
200//878465	Marilba Properties P/L
202//878465	Marilba Properties P/L
204//878465	Marilba Properties P/L
207//878465	Marilba Properties P/L
209//878465	Marilba Properties P/L

Lot/DP	Owner
214//878465	Marilba Properties P/L
60//1038444	Marilba Properties P/L
30//1048395	Marilba Properties P/L
31//1048395	Marilba Properties P/L
32//1048395	Marilba Properties P/L
33//1048395	Marilba Properties P/L
34//1048395	Marilba Properties P/L
171//1133448	Marilba Properties P/L
172//1133448	Marilba Properties P/L
159//1133708	Marilba Properties P/L
1//116565	Nils Taube Ltd
2//116565	Nils Taube Ltd
1//455031	Nils Taube Ltd
2//455031	Nils Taube Ltd
3//455031	Nils Taube Ltd
54//753595	Nils Taube Ltd
55//753595	Nils Taube Ltd
56//753626	Nils Taube Ltd
57//753626	Nils Taube Ltd
58//753626	Nils Taube Ltd
59//753626	Nils Taube Ltd
84//753626	Nils Taube Ltd
85//753626	Nils Taube Ltd
101//753626	Nils Taube Ltd
133//753626	Nils Taube Ltd
134//753626	Nils Taube Ltd
160//753626	Nils Taube Ltd
197//753626	Nils Taube Ltd
198//753626	Nils Taube Ltd
202//753626	Nils Taube Ltd
17//753595	Eccles
18//753595	Eccles
28//753595	Eccles
71//753595	Eccles
72//753595	Eccles
146//753595	Eccles
147//753595	Eccles
191//753595	Eccles
192//753595	Eccles

Lot/DP	Owner
202//753595	Eccles
237//753595	Eccles
239//753595	Eccles
300//753595	Eccles
308//753595	Eccles
326//753595	Eccles

Attachment 2. GRID COORDINATES OF WIND TURBINES

TURBINE COORDINATES

The turbine coordinates for the Coppabella Hills, Marilba Hills and Carrolls Ridge sites are detailed in the tables below. The coordinate system used in MGA Zone 55.

Table 1 – Turbine Coordinates for Coppabella Hills

ID	Easting	Northing
COP 01	641141.84	6156569.77
COP 02	641328.80	6156230.56
COP 03	641680.85	6155979.76
COP 04	641967.31	6155722.98
COP 05	642099.72	6155401.79
COP 06	642361.55	6155082.24
COP 07	642670.90	6154792.69
COP 08	642980.24	6154509.78
COP 09	643736.42	6154321.18
COP 10	644120.75	6154082.09
COP 11	644496.90	6153842.12
COP 12	644712.42	6153513.92
COP 13	645051.25	6153228.09
COP 14	645590.39	6153096.38
COP 15	646003.79	6153010.05
COP 16	645833.87	6152763.14
COP 17	640381.72	6156076.65
COP 18	640567.82	6155715.39
COP 19	640848.12	6155409.05
COP 20	641174.72	6155345.02
COP 21	638470.99	6156113.57
COP 22	638226.99	6155966.60
COP 23	638733.49	6155811.44
COP 24	638730.79	6155516.30
COP 25	639063.96	6155074.42
COP 26	638886.10	6154872.44
COP 27	639022.16	6154555.90
COP 28	638845.28	6154224.79
COP 29	638504.44	6154174.13
COP 30	638392.83	6153925.33
COP 31	638212.64	6153718.37
COP 32	638011.95	6153523.93
COP 33	637973.18	6153233.88
COP 34	637788.04	6153025.88
COP 35	637734.71	6154728.57
COP 36	638034.40	6154843.44
COP 37	638166.21	6154479.94
COP 38	638037.58	6154243.37

ID	Easting	Northing
COP 39	637761.77	6154114.28
COP 40	637485.25	6153973.88
COP 41	640060.51	6154985.99
COP 42	640049.35	6154673.89
COP 43	640014.63	6154384.33
COP 44	639888.78	6154038.25
COP 45	639464.04	6153587.56
COP 46	639516.45	6153264.17
COP 47	639400.40	6153013.34
COP 48	639307.90	6152751.07
COP 49	639700.29	6152377.48
COP 50	640458.28	6154179.56
COP 51	640492.14	6153813.19
COP 52	641783.30	6154241.99
COP 53	640693.44	6153510.48
COP 54	641113.93	6153632.62
COP 55	641397.68	6153769.25
COP 56	641555.84	6154081.20
COP 57	642115.30	6153126.21
COP 58	641848.55	6152808.95
COP 59	641695.34	6152353.95
COP 60	641924.31	6152502.84
COP 61	642214.01	6152812.85
COP 62	642992.32	6152607.21
COP 63	643511.38	6151853.65
COP 64	643442.43	6151582.49
COP 65	644492.82	6150530.25
COP 66	644669.92	6150208.74
COP 67	645540.03	6149909.53
COP 68	645506.95	6149548.71
COP 69	645912.85	6149537.68
COP 70	646130.59	6150400.73
COP 71	646492.43	6150200.28
COP 72	633941.45	6154540.30
COP 73	633979.79	6154224.49
COP 74	633501.18	6154330.61
COP 75	633765.44	6154029.05
COP 76	633779.71	6153719.79
COP 77	636938.39	6155490.12
COP 78	636766.22	6155273.81
COP 79	636525.48	6154799.73
COP 80	636701.69	6155005.33
COP 81	637922.76	6155172.35
COP 82	638731.17	6156246.21
COP 83	643622.85	6152121.02
COP 84	643344.47	6154542.50
COP 85	644107.15	6150725.34

ID	Easting	Northing
COP 86	646109.89	6149703.50

Table 2 - Turbine Coordinates for Marilba Hills

ID	Easting	Northing
MRL 01	652381.78	6154634.51
MRL 02	652404.99	6154326.81
MRL 03	652378.54	6153986.63
MRL 04	652442.52	6153673.17
MRL 05	653312.01	6154603.00
MRL 06	653407.27	6154293.96
MRL 07	653429.10	6153998.70
MRL 08	653791.84	6154252.73
MRL 09	653997.40	6153918.53
MRL 10	654050.08	6153040.78
MRL 11	653921.23	6152861.39
MRL 12	653839.48	6152630.23
MRL 13	653842.25	6152346.29
MRL 14	653825.38	6152054.65
MRL 15	653835.30	6151755.33
MRL 16	650966.17	6152350.64
MRL 17	650970.11	6152059.61
MRL 18	651030.24	6151737.25
MRL 19	652880.13	6151508.10
MRL 20	653261.38	6150880.25
MRL 21	653187.33	6150629.27
MRL 22	653200.89	6150374.85
MRL 23	653359.78	6150100.67
MRL 24	653219.67	6149898.44
MRL 25	653181.28	6149616.75
MRL 26	653765.73	6150043.94
MRL 27	653709.28	6149738.24
MRL 28	654107.10	6150500.38
MRL 29	654155.44	6150036.83
MRL 30	654059.10	6149791.15
MRL 31	654126.04	6149498.74
MRL 32	654271.19	6149175.54
MRL 33	654138.17	6148935.26
MRL 34	653937.75	6148738.39
MRL 35	653373.97	6148774.73
MRL 36	653868.02	6148186.85
MRL 38	653908.60	6147881.00
MRL 39	653845.21	6147628.62
MRL 43	657771.94	6152855.21
MRL 44	657680.29	6152600.67
MRL 45	657519.38	6152393.07
MRL 46	656461.90	6152312.66

ID	Easting	Northing
MRL 47	656351.05	6152105.86
MRL 48	656547.56	6151827.06
MRL 49	657627.98	6151651.65
MRL 50	657646.60	6151369.20
MRL 51	657475.23	6151155.09
MRL 52	657803.87	6150858.98
MRL 53	658275.36	6150211.05
MRL 54	658270.48	6149927.68
MRL 55	658117.54	6149706.26
MRL 56	658264.65	6149274.48
MRL 57	658027.08	6149116.28
MRL 58	658102.69	6148797.42
MRL 59	658094.64	6148516.30
MRL 60	658049.18	6148241.96
MRL 61	658136.73	6147894.82
MRL 62	658581.71	6147857.47
MRL 63	658435.50	6147612.63
MRL 64	658828.01	6147520.79
MRL 65	659500.74	6147765.32
MRL 66	659406.68	6147513.15
MRL 67	658957.94	6147197.29
MRL 68	659195.20	6146888.44
MRL 69	658963.57	6146741.61
MRL 70	658870.38	6146506.04

Table 3 - Turbine Coordinates for Carrolls Ridge

ID	Easting	Northing
CAR 01	654199.01	6136795.23
CAR 02	653942.58	6136627.63
CAR 04	654261.10	6136320.30
CAR 05	654077.39	6136132.97
CAR 06	653959.04	6135798.06
CAR 07	653726.29	6136101.06
CAR 08	653529.80	6135850.03
CAR 09	653821.03	6135567.97
CAR 10	653740.18	6135307.59
CAR 11	653635.41	6135065.62
CAR 12	653592.61	6134793.83
CAR 13	653391.61	6134451.74
CAR 14	653191.19	6134298.07
CAR 15	653258.14	6133997.90
CAR 16	653147.85	6133456.33
CAR 17	653276.25	6133699.14
CAR 18	653014.92	6133211.34
CAR 19	652744.45	6133095.32

ID	Easting	Northing
CAR 20	651542.79	6132163.05
CAR 21	651409.80	6131929.35
CAR 22	651179.28	6131761.44
CAR 23	651735.05	6132361.52
CAR 24	652307.43	6130817.84
CAR 25	652125.48	6130606.87
CAR 26	654409.21	6137096.91
CAR 28	652745.60	6131187.11
CAR 30	651937.01	6130394.33
CAR 31	653318.15	6131209.92
CAR 32	653286.44	6130929.26

Attachment 3. LETTER CONFIRMING PART 3A POSITION

NSW GOVERNMENT
Department of Planning

Contact: Marek Cholinski
Phone: 02 92286284
Fax: 02 9228 6366
Email:
marek.cholinski@planning.nsw.gov.au

22 October 2008

Our ref: S08/01553

Simon Davey
Project Manager
Epuron Pty Ltd
Level 11
75 Miller Street
North Sydney NSW 2060

Dear Mr Davey

Yass Wind Farm Proposal-Application of Part 3A of the Environmental Planning and Assessment (EP&A) Act

I refer to your letter dated 9 October 2008, which sought advice on the application of Part 3A of the EP&A Act to the Yass Wind Farm proposal.

The Director-General of the Department of Planning, as delegate of the Minister for Planning, has formed an Opinion that the Yass Wind Farm proposal (as described in your letter) will be subject to Part 3A. A copy of the Opinion is enclosed for your information.

If you have any queries regarding the above, please contact Marek Cholinski on (02) 9228 6284 or via email marek.cholinski@planning.nsw.gov.au

Yours sincerely

Marek Cholinski
Environmental Planning Officer
Major Infrastructure and Assessments

NSW GOVERNMENT
Department of Planning

Record of Minister's opinion for the purposes of Clause 6(1) of the State Environmental Planning Policy (Major Projects) 2005

I, the Director-General of the Department of Planning, as delegate of the Minister for Planning under delegation executed on 26th February , 2007, have formed the opinion that the development described in the Schedule below, is development of a kind that is described in Schedule 1, Group 8, clause 24 of *State Environmental Planning Policy (Major Projects) 2005* namely development for the purpose of a wind electricity generation facility that has a capital investment value of more than $30 million. It is therefore declared to be a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* applies for the purpose of section 75B of that Act.

Schedule

A proposal by Epuron Pty Ltd for the Yass Wind Farm, a wind electricity generating facility and associated infrastructure located within the Harden and the Yass Valley local government areas, with an installed generating capacity of approximately 450 megawatts comprising approximately 200 turbines, as generally described in the letter by NGH environmental on behalf Epuron Pty Ltd to the Department of Planning dated 9 October 2008.

SHaddad

Sam Haddad
Director-General
Department of Planning

Date: 17/10/2008.

Attachment 4. DIRECTOR GENERAL REQUIREMENTS

NSW GOVERNMENT
Department of Planning

Contact: Marek Cholinski
Phone: (02) 9228 6284
Fax: (02) 9228 6366
Email: marek.cholinski@planning.nsw.gov.au

Our ref: S08/01553

Mr Andrew Durran
Executive Director
Epuron Pty Ltd
Level 11, 75 Miller Street
North Sydney NSW 2060

Dear Mr Durran

Proposed Yass Wind Farm, Yass Valley and Harden Shire Local Government Areas (Application Reference: 08_0246)

The Department has received your major project application for the proposed Yass wind farm project.

I have attached a copy of the Director-General's requirements (DGRs) for the preparation of an Environmental Assessment for the project. These requirements have been prepared following the Planning Focus Meeting held on 14 and 15 October 2008 and in consultation with the relevant government agencies. I have also enclosed a list of relevant guidelines that you may wish to refer to during the preparation of the Environmental Assessment.

It should be noted that the Director-General's requirements have been prepared based on the information provided to date. Under section 75F(3) of the Act, the Director-General may alter or supplement these requirements if necessary and in light of any additional information that may be provided prior to the Proponent seeking approval for the project.

I would appreciate it if you could contact the Department at least two weeks before you propose to submit the Environmental Assessment for the project to determine:

- the fees applicable to the application;
- relevant land owner notification requirements;
- consultation and public exhibition arrangements that will apply;
- options available in publishing the Environmental Assessment via the Internet; and
- number and format (hard-copy or CD-ROM) of the Environmental Assessment that will be required.

Prior to exhibiting the Environmental Assessment, the Department will review the document to determine if it adequately addresses the DGRs. The Department may consult with other relevant government agencies in making this decision. If the Director-General considers that the Environmental Assessment does not adequately address the DGRs, the Director-General may require the Proponent to revise the Environmental Assessment to address the matters notified to the Proponent. Following this review period the Environmental Assessment will be made publicly available for a minimum period of 30 days.

If your project includes any actions that could have a significant impact on matters of National Environmental Significance, it will require an additional approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is your responsibility to contact the Department of the Environment, Heritage, Water and the Arts to determine if an approval under the EPBC Act is required for your project (6274 1111 or

http://www.environment.gov.au). Please note that the Commonwealth Government has accredited the NSW environmental assessment process for assessing impacts on matters of National Environmental Significance. As a result, if it is determined that an approval is required under the EPBC Act, please contact the Department immediately as supplementary Director-General's requirements will need to be issued.

If you have any enquiries about these requirements, please contact Mr Marek Cholinski, Environmental Planning Officer, Major Infrastructure Assessments on 02 9228 6284 or via email (marek.cholinski@planning.nsw.gov.au).

Yours sincerely

12.1.09

Chris Wilson
Executive Director
Major Project Assessments
as delegate of the Director-General

Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Project	Construction and operation of an approximately 500 megawatt wind farm including up to 195 wind turbines and associated infrastructure.
Site	Approximately 20-35 kilometres west-southwest of Yass at 3 sites, Coppabella Hills, Marilba Hills and Carrolls Ridge. In the Harden Shire and Yass Valley local government areas.
Proponent	Epuron Pty Ltd
Date of Issue	12.01.09
Date of Expiration	12.01.11
General Requirements	The Environmental Assessment (EA) must include: • an **executive summary**; • a **detailed description** of the project including: → construction, operation and decommissioning details; → the location and dimensions of all project components including the wind turbines (including map coordinates and AHD heights), any above ground transmission connection to the existing 132kV transmission network, electrical sub stations, underground cabling between turbines, on site control room and equipment storage, temporary concrete batching plant(s), construction compounds and access roads; → resourcing requirements (including water use and source impacts); and → a timeline identifying the proposed construction and operation of the project components, their envisaged lifespan and arrangements for decommissioning and staging. • consideration of any **relevant statutory provisions** including the consistency of the project with the objects of the *Environmental Planning and Assessment Act 1979;* • an **assessment of the key issues** outlined below, during construction, operation and decommissioning (as relevant); • a **draft Statement of Commitments** detailing measures for environmental mitigation, management and monitoring for the project; • a **conclusion justifying the project** taking into consideration the environmental, social and economic impacts of the project; the suitability of the site; and the public interest; and • **certification by the author** of the EA that the information contained in the Assessment is neither false nor misleading.
Key Assessment Requirements	The EA must include assessment of the following key issues: • **Strategic Justification** - the EA must: → include a strategic assessment of the need, scale, scope and location for the project in relation to predicted electricity demand, predicted transmission constraints and the strategic direction of the region and the State in relation to electricity supply, demand and electricity generation technologies; → include a clear demonstration of quantified and substantiated greenhouse gas benefits, taking into consideration sources of electricity that could realistically be replaced and the extent of their replacement; and → include an analysis of the suitability of the project with respect to potential land use conflicts with existing and future surrounding land uses (including existing and approved rural residential development, property values, land of significant scenic or visual value, land of high agricultural value, mineral reserves and conservation areas), taking into account local and strategic landuse objectives; and → describe alternatives considered (location and/ or design) and provide justification for the preferred project demonstrating its benefits including community benefits on a local and strategic scale and how it achieves stated objectives.

- **Visual Impacts** - the EA must:
  - → provide a comprehensive assessment of the landscape character and values and any scenic or significant vistas of the area potentially affected by the project. This should describe community and stakeholder values of the local and regional visual amenity and quality, and perceptions of the project based on surveys and consultation. Cumulative visual impacts of existing and approved wind farms must also be assessed in the EA;
  - → assess the impact of shadow "flicker", blade "glint" and night lighting from the wind farm;
  - → identify the zone of visual influence (no less than 10 kilometres) and assess the visual impact of all project components on this landscape;
  - → include photomontages of the project taken from potentially affected neighbouring residences (including approved but not yet developed dwellings or subdivisions with residential rights), settlements and significant public view points, and provide a clear description of proposed visual amenity mitigation and management measures;
  - → provide an assessment of the feasibility, effectiveness and reliability of proposed mitigation measures and any residual impacts after these measures have been implemented.

- **Noise Impacts** - the EA must:
  - → include a comprehensive noise assessment of all phases and components of the project including turbine operation, construction and traffic noise. The assessment must identify noise sensitive locations (including approved but not yet developed dwellings or subdivisions with residential rights), baseline conditions based on monitoring results, the levels and character of noise (e.g. tonality, impulsiveness etc) generated by noise sources, noise criteria, modelling assumptions and worst case noise impacts.
  - → in relation to wind turbine operation, the EA must determine worst case noise impacts under operating meteorological conditions (i.e. wind speeds from cut in to rated power), which may include impacts under meteorological conditions that exacerbate impacts. The probability of such occurrences must be quantified;
  - → if any noise agreements with residents are proposed for areas where noise criteria cannot be met, provide sufficient information to enable a clear understanding of what has been agreed and what criteria have been used to frame any such agreements;
  - → clearly outline the noise mitigation, monitoring and management measures that would be applied to the project. This must include an assessment of the feasibility, effectiveness and reliability of proposed measures and any residual impacts after these measures have been incorporated;
  - → include a contingency strategy that provides for additional noise attenuation should higher noise levels than those predicted result following commissioning and / or noise agreements with landowners not eventuate; and
  - → include an assessment of vibration impacts associated with the project.

  The assessment must be undertaken consistent with the following guidelines (or as otherwise agreed with the DECC):
  - → Wind Turbines - the South Australian Environment Protection Authority's *Wind Farms - Environmental Noise Guidelines*, 2003 Site Establishment and Construction - *Environmental Noise Control Manual* (NSW EPA, 2004);
  - → Traffic Noise – *Environmental Criteria for Road Traffic Noise* (NSW EPA, 1999);
  - → Site Establishment and Construction - *Environmental Noise Control Manual* (EPA, 2004); and
  - → Vibration – *Assessing Vibration: A Technical Guideline* (DECC, 2006).

- **Flora and Fauna** - the EA must:
  - → include an assessment of all project components on flora and fauna and their

	habitat consistent with the *Draft Guidelines for Threatened Species Assessment* (DEC, 2005), including details on the existing site conditions and quality and likelihood of disturbance; → The EA must specifically consider worst case impacts to all species, especially threatened species and communities listed under both State and Commonwealth legislation that have been recorded on the site and surrounding land, impacts to riparian and/ or instream habitat in the case of disturbance of waterways, impacts to endangered ecological communities and to biodiversity corridors. In addition, impact of the project on birds and bats from blade strikes, effects of low air pressure zones at the blade tips, and alteration to movement patterns resulting from the turbines and transmission lines must be assessed, including demonstration of how the project has been sited to avoid and/ or minimise such impacts; → details of how flora and fauna impacts would be managed during construction and operation including adaptive management and maintenance protocols. This includes impacts from associated infrastructure separate to actual turbine impacts; and → measures to avoid, mitigate or offset impacts consistent with "improve or maintain" principles. Sufficient details must be provided to demonstrate the availability of viable and achievable options to offset the impacts of the project. • **Indigenous Heritage** - the EA must include an assessment of the potential impact of the project components on indigenous heritage values (archaeological and cultural).The EA must demonstrate effective consultation with indigenous stakeholders during the assessment and in developing mitigation options (including the final recommended measures) consistent with *Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation* (DEC, July 2005). • **Hazard/Risks**– the EA must include an assessment of the potential impacts on aviation safety considering nearby aerodromes and aircraft landing areas, defined air traffic routes and radar interference such as the installation at Mt Bobbara, communication systems in particular the communication tower near the Coppabella site, electric and magnetic fields and bushfires. • **Traffic and Transport** – the EA must assess the construction and operational traffic impacts of the project including: → details of the nature of traffic generated, transport routes, traffic volumes and potential impacts on local, regional and Crown roads such as the Hume Highway and Burley Griffin Way, bridges and intersections, including any proposed road upgrades and repairs; and → details of site access roads including how these would connect to the existing road network and any operational maintenance or handover requirements. • **General Environmental Risk Analysis** –notwithstanding the above key assessment requirements, the EA must include an environmental risk analysis to identify potential environmental impacts associated with the project, proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures. Where additional key environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of the additional key environmental impact(s) must be included in the EA.
Consultation Requirements	The Proponent must undertake an appropriate and justified level of consultation with the following parties during the preparation of the EA: • Yass Valley Council; • Harden Shire Council; • Department of Environment and Climate Change; • Department of Water and Energy; • Department of Primary Industries; • Department of Lands

	• NSW Roads and Traffic Authority; • Transgrid • Country Energy; • NSW Rural Fire Service; • Murrumbidgee Catchment Management Authority; • Commonwealth Department of Defence; • Civil Aviation Safety Authority; • Airservices Australia; and • the local community and landowners. The EA must clearly describe the consultation process and indicate the issues raised by stakeholders during consultation and how these matters have been addressed.
Deemed refusal period	120 days

Relevant Guidelines - For Reference

General
Wind Energy Facilities draft Environmental Impact Assessment Guidelines (Planning NSW, June 2002)
Best Practice Guidelines for Implementation of Wind Energy Projects in Australia (Auswind, 2006)
Visual
Wind Farms and Landscape Values: National Assessment Framework (Australian Wind Energy Association and Australian Council of National Trust, June 2007).
Biodiversity
Cumulative Risk for Threatened and Migratory Species (Commonwealth Department of Environment and Heritage, March 2006)
Wind Farms and Birds: Interim Standards for Risk Assessment, (Auswind, July 2005)
Assessing the Impacts on Birds – Protocols and Data Set Standards (Australian Wind Energy Association)
Aviation Hazard
Advisory Circular 139-18(0) Obstacle Marking and Lighting of Wind Farms (Civil Aviation Safety Authority, July 2007) Note: this advisory is currently withdrawn however a replacement has to date not been issued.
Water Quality
The NSW State Groundwater Quality Protection Policy
The NSW State groundwater Ecosystem Policy

Attachment 5. PLANNING FOCUS MEETING MINUTES

23rd October 2008

Dear Sir / Madam

RE: Planning Focus Meeting, Yass Wind Farm, 14th and15th October 2008

Thank you for attending the Planning Focus Meeting for the proposed Yass Wind Farm.

The attached final minutes have been sent to all participating agencies and amended as appropriate to ensure that the comments noted are accurate and in context; changes were made to the Department of Lands, Department of Planning, Harden Shire, Department of Primary Industry and the Rural Fire Service comments only.

As discussed, these minutes are intended to 'kick-off' agency consultation. You will have further opportunity to provide comments to the Department of Planning after the Project Application for this proposal has been lodged.

If you would like to pass further comments on to the Department of Planning directly, please contact Neville Osborne neville.osborne@planning.nsw.gov.au or Marek Cholinski, Marek.Cholinski@planning.nsw.gov.au.

Thank you again for your participation which will assist us in carrying out a thorough assessment of the proposal.

Yours sincerely

Tim Browne

Project Officer, ***ngh****environmental*

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Participants included:

- Neville Osborne and Marek Cholinski, Department of Planning
- John Daunt, Department of Lands
- Dr Sandie Jones and Lyndel Walters, Department of Environment and Climate Change
- Cressida Gilmore, Department of Primary Industries
- John Franklin, Murrumbidgee Catchment Management Authority
- Sharon Langman, Harden Shire Council
- Suzanne Jurcevic, Yass Valley Shire Council
- Ben Bates and Mahesh Nagarajan, Country Energy
- Maurice Morgan, Roads and Traffic Authority
- Michael McManus, Transgrid
- Rodger Ubrihien, Bega Duo Designs
- Simon Davey and Julian Kasby, Epuron
- Brooke Marshall and Tim Browne, **ngh**environmental

Meeting format

Participants met in Binalong on the 14th of October 2008 where a presentation on the proposal was given by Epuron Project Manager, Simon Davey and **ngh**environmental's Brooke Marshall. Two of the three precincts were visited on day one, Carrolls Ridge and Marilba Hills. Participants initially proceeded to the Carrolls Ridge precinct near where a monitoring mast is due for erection.

Participants asked questions and presented issues of relevance to their agencies. The group then relocated to the Marilba Hills site on the northern side of the Hume Highway, near a telecommunications tower. This area was chosen as it afforded a good view of the Marilba Hills proposal area. Similar to Carrolls Ridge, discussions within the group focussed on identifying issues of concern from a number of agencies.

On Wednesday October 15th, the participants were taken to the main ridge at the Coppabella Hills precinct. Due to the size of the precinct, it was considered impracticable to attempt to see a large portion of each precinct in detail. As such, the site inspection sites were chosen to facilitate extended views of each precinct. At each stop, Julian Kasby gave an overview of likely infrastructure placement and views to other ridges within the development envelope. The number of turbines and their placement would not be decided until after the results of specialist studies.

Key issues discussed at the meeting are indicated below.

Comments from participants:

Agency	Issues raised
Department of Planning	The Department of Planning representatives, Neville Osborne and Marek Cholinski, raised the following issues: • Potential socio-economic impacts and the ability of members of the community to shape the final infrastructure layout • Was Epuron considering a different approach to the community fund that had been offered in past project applications lodged by Epuron? Simon Davey indicated that benefits for the local community was important but Epuron was not yet committing to a voluntary community fund, based on feedback in relation to other projects, and will consider the issue further during the project development phase. • Sought clarification that the archaeology assessment going to include appropriate consultation. Brooke Marshall indicated that the advertisement had been issued and consultation would be as per the DECC guidelines. • The potential impact to local airfields • Need to consider the proposal in the light of the 'maintain or improve' principle • The general access routes for all precincts • Potential cumulative impact of the proposal • Potential soil and erosion issues particularly at the Coppabella Hills precinct • Are there potential locations for other winds farms in the vicinity of the three precincts? Simon Davey indicated that although Epuron was not actively developing other potential sites in the area, given the wind resource and electrical grid it is probable that there may be future wind energy development in the area. • Indicated that they would like the outer envelope for development to be clearly defined in the Environmental Assessment ie: the 'worst case' impacts • Wanted to ensure that maps of the proposal were presented clearly at appropriate resolutions • The DoP inquired about the potential impact of low air pressures around blade tips to bats. • Consideration of water issues regarding the construction phase and water sourcing, need for batch plants as well as affects on local catchments from the project. • DoP stressed the importantance for good community consultation during the proposal • The proximity of non associated dwellings the to consequent visual and noise impacts • The amount vegetation clearing at Carroll's Ridge
Department of Environment and Climate Change	DECC representatives, Dr Sandie Jones and Lyndal Walters, raised the following issues: • DECC indicated that under the Protection of Environment Operations Act 1997 wind farms were no longer licensed and during construction and operation any issues (breaches) relating to noise would default to local Councils rather than the EPA branch of the DECC. • DECC also enquired as to whether concrete batch plants would be required onsite during the proposal. Further, the DECC indicated that should concrete batch plants be required during the proposal this may trigger the requirement for the proponent to obtain a license under the POEO Act specifically relating to concrete batching. • The DECC indicated that grid connections outside of the development envelope should also be considered as part of the environmental assessment • The DECC indicated that any assessment would need to include amount of proposed clearing of native vegetation and proposed offsetting associated with potential clearing. DECC also indicated that if exact amount of clearing within each vegetation community could not be finalised using the 'development envelope' approach then offset calculations would be based on the entire development envelope

Agency	Issues raised
	• DECC representatives noted that there was evidence of habitat for arboreal mammals and abundant woodland (Carrolls Ridge) which is likely habitat for birds and bats and a likely corridor. The DECC were also interested in the potential impact of low air pressures around blade tips to bats.
Murrumbidgee CMA	Murrumbidgee CMA representative, John Franklin raised the following issues • The CMA were concerned with the amount of vegetation clearing and the quality of any vegetation that would require clearing • Potential impacts to land holders regarding any offsetting requirements
Department of Lands	The Department of Lands representative, John Daunt, raised the following issues: • There is potential for native title implications at the trig station at Carrolls Ridge. Further, it is unlikely that native title has been extinguished in this area. • There appears to be no Crown land affected by the proposal other than perhaps a couple of Trig reserves • For most wind farm projects it is mostly Crown roads that are affected. Crown roads, particularly those that are not constructed, are generally not suitable to be used for wind farm access tracks and such use is not favoured by the Department. It is suggested that proponents locate such tracks and the associated underground and/or overhead cables within easements on private land. • Lands are aware that access tracks and cables may unavoidably have to cross over Crown roads. • Department of Lands is a Roads Authority and for this and other Part 3A developments and is required (per Section 75 V of the EP&A Act 1979) to grant consent under Section 138 of the Roads Act 1993 for works on Crown public roads. his consent is usually provided by the granting of a licence which authorises the works on the Crown roads and sets the conditions and rental applying to this consent. uch a licence can also be extended to apply to any similar works located on Crown land such as Trig reserves provided that native title issues are satisfied. The consent of the Surveyor General will also be required for any works to be located on Trig reserves.
Department of Primary Industries	• Cressida Gilmore, of DPI, raised the following issues: • There is two current exploration license that has the potential to be affected by the proposal, specifically at the Marilba Hills precinct. Further, the DPI indicated that potential exploration work is likely to target the Mt Mylora prospect located in the northern portion of the Marilba Hills precinct. Part of ELA 3559 does cover the Coppabella Precinct as well so whilst it appears at this stage the main issue is impacts on exploration in the Marilba Hills precinct, the Coppabella area will also need to be assessed for impacts. • From a fisheries and agriculture point of view, potential indirect impacts such as sediment laden runoff should be assessed as well as ccess roads over waterways (if there are any) needing approval from DPI Fisheries Division and the need to comply with Fisheries policies and guidelines. • Mitigation measures for managing weeds will be required to be detailed particularly as they will most likely be introduced from trucks and any imported soils. Weeds will also take hold on disturbed soil areas, particularly on access roads and disturbed sites for cabling and other associated development. Those areas will need particular attention. • Adequate mitigation measures for the control of soil erosion and dust, generated particularly from the internal access roads will need to be implemented. • Impacts on the existing farming operations will need to be minimised. In particular, you will need to ensure that livestock are not able to escape from the property as a result of opening gates for trucks. • Containment of any substances from any proposed substation is required to ensure that the contamination of pasture and dams does not occur. • It will be important also to consult with landholders in the vicinity of the wind farm to assess community issues and concerns.
Roads and Traffic	The Roads and Traffic Authority representative, Maurice Morgan, made the following comments.

Agency	Issues raised
Authority	• Careful consideration would have to be undertaken when identifying the route for infrastructure to be transported to site. • The RTA were concerned with ensuring the safe movement of vehicles • Safe viewing areas off the Highway should be considered • Access points from the Hume Highway should be carefully considered. The RTA indicated that the Hume Highway may have restricted access points and access points should be indentified in consultation the with RTA
Yass Valley Shire Council	Suzanne Jurcevic, raised the following issues: • As a result of the Conroys Gap wind farm, the Yass Valley Shire Council have determined not to support wind farms within the LGA • Council would expect some form of community funding to be part of any proposal
Harden Shire Council	Sharon Langman raised the following issues: • Council would consider some form of community funding to be an appropriate part of any proposal. Administration of the fund considering the close proximity to Yass LGA would be of interest (previously, community boards have been problematic in Harden) • Council would also like the visual impact of the proposal from both the Hume Highway and Burley Griffin Way assessed • Potential impact to farmers in the immediate vicinity to realise the 40 hectare minimum for dwellings in the area. • Soil erodibility issues in the Coppabella precinct • The presence of an emergency communications tower used by the RFS, police and Council in the vicinity of the Coppabella precinct • This is the first wind farm proposal for the Harden Shire

Comments from agencies unable to attend the PFM:

Agency	Comments
Defence	Flight Safety – will the site of the wind farm have any affect on the safety of military flying operations? Communications – are there any Defence line-of-sight communications such as microwave link paths passing through the wind farm site? Defence radars – is the proposed wind farm site in proximity to Defence radar? Please keep Defence informed of the proposal. When do you expect that Defence would be requested to formally provide comment?
Airservices Australia	Indicated that the following information would be required • heights in AHD and coordinates in WGS84 of turbines • An assessment could then be made on receipt of the required information
Rural Fire Service	The Rural Fire Service is concerned that the development may provide a source of ignition for a bush fire either by lightning strike or electrical/mechanical failure. The RFS are however confident that these can be overcome by appropriate design consideration.
Department of Water and Energy	The Department of Water and Energy were unable to comment at this early stage of planning process. Ongoing consultation with the DWE will continue throughout the planning phase of the proposal.

Attachment 6. COMMUNITY CONSULTATION PLAN

Yass Valley Wind Farm, Community Consultation Plan

This plan includes key community consultation issues associated with the proposal and strategies to address these.

The format of this plan is:

1. Consultation objectives
2. Issue management
3. Project based activities
4. Documentation of activities undertaken

1. Consultation Objectives

The objectives of the consultation are:

- To ensure the community is fully informed about the proposal
- To provide multiple opportunities for the community to receive information and provide feedback about the proposal
- To incorporate the feedback into the design of the wind farm where possible
- To open channels for on-going dialogue with the community
- To build positive, trust-based relationships with members of the local community

Wind farm site selection and development is challenging and focused with a requirement for elevated land and good wind speeds usually in rural and remote areas. Once a site containing all these requirements has been found there is reasonably limited scope for surrounding communities to be involved in making key decisions about proposals.

Accordingly, the community engagement process will focus on informing the surrounding community about the wind farm development, and highlighting areas where the community can contribute to the project.

The consultation approach should be summarised as

> "Use multiple methods to seek out community members to inform them of the proposal and to understand their concerns and aspirations in relation to it. Where possible incorporate their feedback into the design of the wind farm and inform them of where and how this has been done. "

From Epuron's point of view the decision statement is:

How best to design and site the wind farm to meet technical, legislative, financial, social and environmental constraints.

From the community's point of view, the decision statement is:

While some will object to the proposal, it is hoped that the community will form the view that their collective interests are best served by assisting the proponent with the identification and mitigation of potential impacts of importance to the community. Consultation should also look at how best to maximise the local and regional benefit of the development.

This requires the identification of impacts and opportunities, and suggestions for mitigation of impacts and enhancement of opportunities. It also relies on the community understanding the process of wind farm development and specific issues of interest to the community. The focus of the consultation plan will be on providing this understanding and engagement.

2. Issue management

Several issues have been identified below. These issues pose potential risks to the effective identification and mitigation of impacts important to the community. Mitigation strategies have been developed below, specific to the identified issues.

Issue	Risks	Mitigation strategies
a) Distrust in wind farms A lot of misinformation is available about the pros and cons of wind farms. The reasons behind wind farm development are complex and not easily reduced to simple facts. Complex issues can be difficult to communicate to a wide audience.	Oversimplification of issues. Confusion of issues (i.e. cases at other wind farms may or may not apply to this project). Appear to not be giving sufficient weight to issues important to the community.	Dissemination of issue-specific information; i.e. not lumped with other issues; i.e. a FAQ format
b) Distrust in approvals process The complex approvals process can be difficult to communicate to a wide audience. Previous efforts by individuals trying to have input may have gone unrewarded so a feeling of futility can exist.	Perception that the process is too difficult to become involved in. Suspicion that input will not be valued.	Clearly illustrate approvals process. Clearly define opportunities for community input including what is required and when it is required. Communicate back, identifying where input has been used.
c) Distrust in wind farm developers Epuron seen as an overseas company. Epuron seen as a city based and focused on solving city problems at the expense of rural areas. Perception that the development	Anger and resentment. Distrust of impact identification and mitigation.	Establish credentials of the developers. Outline motives and previous projects. Focus on community benefits. Listen to community and demonstrate having taken on board concerns.

is an external influence of change over which they have no control.		Focus on maximising use of regional resources. Mitigate as per **a)** and **b)**.
d) Distrust in environmental assessors Consultants not seen as independent and credible.	Distrust of impact identification and mitigation.	Establish credentials. Outline previous projects. Listen to community and demonstrate having taken on board concerns.
e) Fear of unknown impacts Large volume of technical material to digest. Complex issues difficult to explain to people when they are distressed.	Exaggerated fears.	Layman explanations of issues delivered in concise, digestible amounts. Dissemination of issue-specific information.
f) Staging of the project / involvement potential By the time the sites are chosen there is little role for the community	Apathetic or against proposal due to lack of involvement.	Acknowledge the scope for input is limited and thereby reduce the potential to raise expectations unrealistically. Clearly outline areas for community involvement. Actively invite input within this scope.
g) The 'articulate irate' As those most against the proposal will be dominating responses, the consultation may reflect one-sided view point.	Vocal opponents are generally not interested in contributing to the proposal, they oppose the principles of wind farm development. Heated meetings will further deter engagement of the broader community. Interested sections of the community may be "overpowered" and may be marginalised.	Ensure community is engaged in a forum that minimises risk of vocal opponents dominating face to face public consultation. This can be achieved via the 'drop in' or open house sessions, face to face liaison and by using focussed meetings with specific groups invited ie. local landcare group, neighbours. Meet with vocal opponents and demonstrate listening to their concerns.
h) Unified message Many points of contact exist for the community, including Epuron, consultants, Dept. of Planning.	Differing messages may create confusion and distrust.	Stay 'on message': • we are investigating the impacts thoroughly, • we will develop mitigation measures to make them as acceptable as possible, • we will seek the community's input into identification and mitigation measures • we will communicate back,

		identifying where input has been used.
i) Unequal distribution of benefits Residents close to the development are likely to feel more strongly. These people should have a greater say in the development.	These individuals will be more concerned and require more contact with the company.	Consultation should target these people preferentially. Consultation should separate local and broader engagement activities.
j) First impressions Once an individual has formed an opinion, it may be difficult to relay opposing information.	That individuals will discount any benefits of wind farms if their first exposure is one being proposed nearby.	Present a positive image of wind power as early as possible.
k) Exposure Need to get information out to a wide range of people, not just neighbours and vocal groups.	Inadequate consultation if information is not getting out to broader audience.	Use established social (and media) channels in dissemination of materials, ie. sport clubs.

Project-based activities

The following table outlines the different project stages and associated community consultation objectives and activities. For each stage, the level of consultation sought is also indicated:

- Inform: one way transfer of information, promote awareness and educate, or
- Consult: two way transfer of information, seek input and feed-back.

From the initial announcement of the project, which will alert the wider community to the development, the Proponent should follow up with:

- Newsletters,
- Media opportunities
- Community Open House in the local area
- Attendance at local group meetings eg. landcare
- Letters to identified residents within 5kms of the proposal site
- Follow up individual meetings to concerned landowners

Specifically, the community open house forum will seek to inform the community about the wind farm as well as seeking individual and community views on issues that the community perceives as being important. Follow up phone calls, emails, letters can progress individual issues raised. This strategy is designed to be responsive to concerns raised by the community and individuals and will allow complex issues to be dealt with more thoroughly on their own rather than amalgamated with other topics.

It may be appropriate to have a post open house, follow up meetings with individual landowners that express concerns about the project. This follow up meeting would create an opportunity for the Proponent to further address the potential concerns of the individuals in the community and to

provide information on how their feedback has helped plan the most appropriate design for the proposed wind farm.

Finally, closer contact with the nearby properties owners is recommended. Addressing concerns proactively allows the best chance of greater acceptance of the proposal by the broader community. Broader and local activities are separated in some of the project-based activities that follow.

Project stages	Community engagement objectives	Level on the Spectrum	Suggested community engagement activities
Identify sites for turbines and easements **and** **Secure landowners**	Transparency.6 Build trust. Public to understand justification for wind farms. Public to understand criteria and rationale for site selection. Public understands development process.	Inform Consult Inform Inform	*1) Local:* Contact made with local residents. Phone number provided for one-on-one contact (ngh to field calls related to impacts). Key issues to discuss: • Rationale for wind farms, • Staging of project, • Present all three precincts, • Why has this site been selected? • What might be involved? • Will the project definitely go ahead? • How we propose to mitigate concerns? • Evidence we have done it in the past? • What are the landowner's main concerns? (document) Resources on hand: • Flow chart showing assessment process, where community input is required • Auswea fact sheets on key issues, *2) Broader:* Editorial on need for sustainable energy sources and specifics of wind power (local papers). Editorial on the assessment process and stage of the project.
	Public understands factors	Inform	Newsletter to explain site variables, assessment process, what the public

Design site layout (concept design)	influencing the development. Understands assessment process and likely mitigation strategies. Public contributes local information. Public understands what they can influence. Receives feedback about what information was used.	Consult Inform	can influence. Indicate Open House will be coming soon. Distribute through varied channels, i.e. sports, schools, clubs, Landcare groups. Open House to provide information, identify and talk through issues and establish contacts for further information (advertise in newspaper, through local groups, call nearby landowners). Open House resources: issue specific hand-outs provided. Web pages made available to establish credentials of the Proponent and subcontractors. Face to face briefings as required (Council, neighbours, interest groups). Editorial to broader community indicating some of the issues identified and strategies being employed to overcome them.
Pre-DA submission	Public has an opportunity to validate the draft assessment summary (any glaring omissions?) Public provides input on draft assessment. Public provides formal input (submissions) on final assessment docs.	Inform Consult	It is recommended that the Proponent present photomontages of the draft layout of the turbines, and associated document at a drop in session that engages the local community. This would provide the Proponent with an opportunity to show the local community how their feedback has helped plan the most appropriate design for the locality. *1) Local:* Contact made by phone or letter with local area, providing summary information, asking for concerns. Follow-up with focused 'drop in' session(s) that informs the local community of the proposal and allows the Proponent to deal with specific issues in detail (if required). 2) *Broader:* Newsletter summarises findings in lay terms, indicates timeline for assessment and exhibition time lines. Feedback sought on summary, further concerns.
DA submission	Public understands the process (how decisions are made).	Inform	Newsletter / fact sheet.
Public exhibition period	Public is aware of the decision.	Inform	Newsletter and/or editorial.

Attachment 7. EXAMPLE OF COMMUNITY FEEDBACK FORM

EPURON

Community feed back form.

You can help us understand the impact of the proposed Yass wind farm on the local area by taking a few minutes to fill out this form. The results will be collated and used in the environmental assessment of the proposed wind farm.

Your feedback is particularly useful to us in three ways:

1. **To make sure we have thoroughly identified community concerns,**
2. **To make sure we haven't missed any important local information,**
3. **To feed this information back into the project and thereby allow for the best possible wind farm proposal to be submitted.**

Please be as specific as possible with your feedback; attach another sheet if you need more space.

---

1. What do you value the most about the local area:

- ☐ Views
- ☐ Community / family ties
- ☐ Historic values
- ☐ Recreation opportunities
- ☐ Work opportunities
- ☐ Other …….

2. What is your interest in the local area (please provide details)

- ☐ Industry (Agriculture or Mining)……...
- ☐ Recreation / tourism: ……..
- ☐ Live nearby:…… ……..…….
- ☐ Work nearby……..……..
- ☐ Other……..……..

3. Which statements describe you (tick all those that apply)

- ☐ I may see the wind farm from my house
- ☐ I may see the wind farm from my property or from my place of work
- ☐ I am a resident of the area in which the wind farm may be located
- ☐ I am a landowner involved with the proposal
- ☐ I may see the wind farm from a place of recreation. Where from?.....…….

4. If you have concerns about this wind farm, what aspect would have the <u>biggest impact</u> on you?

.....
.....
.....

4. What do you <u>like</u> about wind farms, in general?

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……..……
.....
……..……

5. What do you <u>dislike</u> about wind farms, in general?

.....
……..……
……..……
……..……

EPURON
Level 1, 75 Miller Street, North Sydney, NSW
Phone: (02) 8456 7400

EPURON

Community feed back form.

6. If you have concerns about this proposal, please state them under the appropriate headings.

a. Environmental issues (plants, animals, soils, water, air):

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.....

b. Visual issues:

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c. Aboriginal or non-indigenous heritage issues:

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d. Noise issues:

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.....
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e. Recreation issues:

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.....
.....

f. Health issues:

.....
.....
.....

g. Community issues:

.....
.....
.....

h. Other issues:

.....
.....
.....

About you: this section is optional, however, adding your name and the **general area where you live** would add credibility to the survey and improve effectiveness.

Name .....
Address.....
Phone .....

☐ I would like to be contacted by the proponents of the wind farm with further information about its assessment and development.

Please attach further comments on a separate sheet or send further correspondence to:
Julian Kasby, Epuron, Level 11, 75 Miller Street North Sydney, NSW

Attachment 8. COMMUNITY CONSULTATION MATERIAL

YASS WIND FARMS

Community Update No. 1 – November 2008

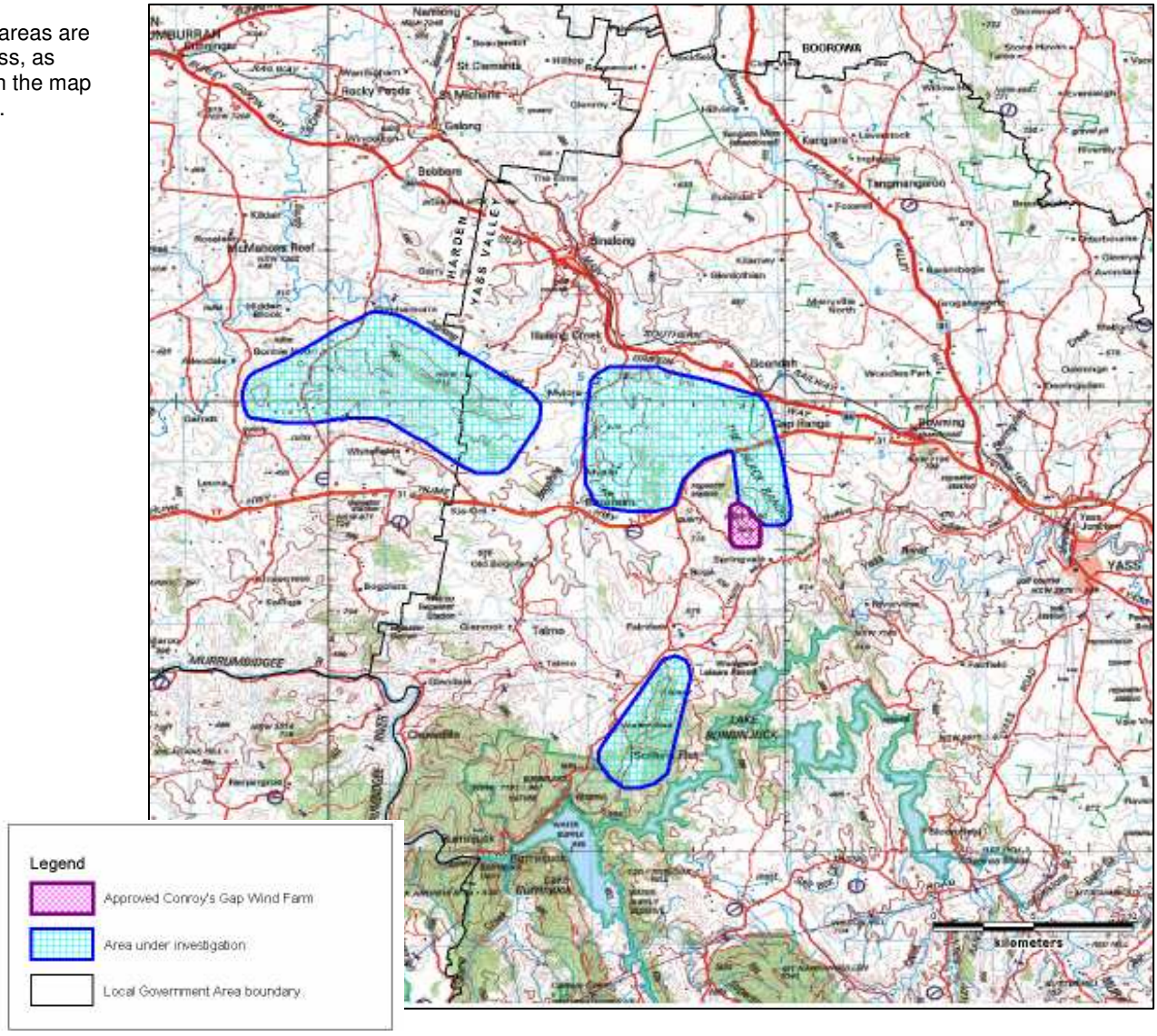
INTRODUCTION

EPURON has commenced investigations into the potential for three wind farms to the west of Yass. This newsletter presents the areas under study and outlines the opportunities for community participation in relation to the work.

EPURON invites local residents and other interested parties to an Open House / Information Day (details are over the page). This provides an opportunity to discuss the project in more detail and for the community to provide feedback.

YASS WIND FARMS PROPOSAL

The study areas are west of Yass, as indicated in the map to the right.



WHAT IS BEING PROPOSED

EPURON has recently started work to determine the potential for 3 wind farms to be located in the region west of Yass region, as indicated in the map. The wind farms are proposed in 3 distinct precincts, generally consisting of exposed hilltops and ridges to the north and south of the Hume Highway. The wind farms generate electricity that will feed into the NSW grid via the existing 132,000 volt powerlines in the area.

Our activities will include engagement with the local community to exchange information and to understand specific issues in relation to the project area.

Specialist investigations will be made in biodiversity, noise and visual impacts to enable us to understand and mitigate potential impacts of the projects.

EPURON will use this information as well as detailed computer modelling of predicted wind resources in the area to determine the potential number and location of wind turbines in the areas marked on the map above. The wind farm will use the latest technology wind turbines and at this stage a possible total of up to 195 wind turbines is envisaged across the 3 precincts.

POTENTIAL BENEFITS

Generation of new, clean, renewable power is required to meet increased customer demand and to reduce greenhouse gas emissions from carbon based fuels. The Yass area has excellent wind speeds and is well positioned to benefit from wind energy production.

The project will have a number of benefits:

- Clean, renewable energy, with no water used in generation. The project will provide enough renewable electricity for the average consumption of around 200,000 homes over a typical year;
- Reduced pollution and greenhouse gas emissions, leading to a better environment for future generations. The project will reduce greenhouse gas emissions by 1 million tonnes of CO_2 (equiv) over a typical year; and
- Income, employment and investment opportunities for the Yass and Harden regions.

APPROVAL PROCESS

The project will be assessed as a Major Project under Part 3A of the NSW Environmental Planning and Assessment Act. The NSW Minister for Planning is the approval authority. The application for approval will include an Environmental Assessment, which assesses the project against key issues that have been identified by the Director-General of the Department of Planning.

Environmental Assessment

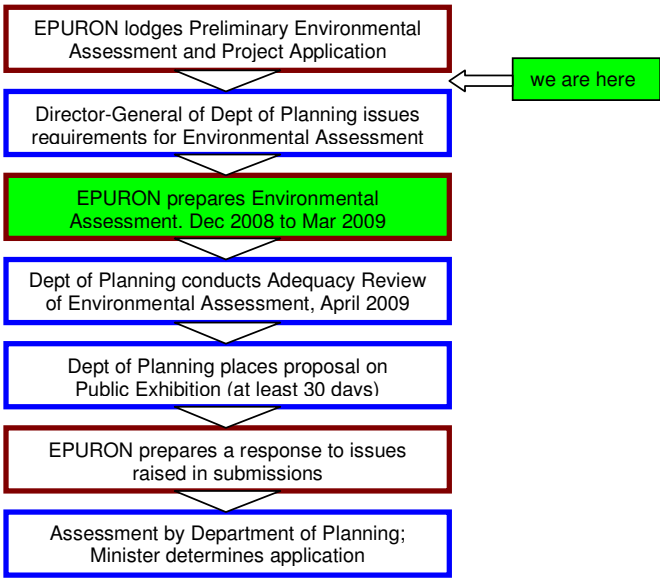
The Environmental Assessment identifies the potential environmental impacts of a proposal and how to mitigate them. Studies will include:

- background noise measurements;
- visual impact assessments;
- flora and fauna assessments including bird and bat studies;
- television and radio interference assessments;
- Aboriginal and other historic heritage; and
- traffic and transport impact assessments.

This will feed into the design process to ensure impacts are considered and the project modified accordingly. These studies are being carried out by independent contractors with input sought from the community.

Indicative timeframe

This chart shows the steps in the process we are following:



HAVING YOUR SAY

Input from the Community

Our aim is to ensure that we identify and, where possible, avoid or mitigate the potential impacts of the wind farm. Before finalising the proposal for submission to the Department of Planning, we wish to ensure that:

- all relevant issues are considered by EPURON in the assessment of the project; and,
- the community is fully informed and your feedback and concerns are considered in the proposal.

An independent phone survey and a recent poll by the Upper Lachlan Shire Council have confirmed strong support for wind farms, but we recognise that opinions in relation to wind farms vary between individuals. The objective of consultation is to determine how to develop the best wind farm possible on this site.

Community Information "Open House"

EPURON is holding an Open House to present the proposal, answer any questions and record community feedback. EPURON staff and consultants will be available to discuss the project and will have photo montages to show what the project is likely to look like.

Date:	Wednesday 10th December 2008
When	2pm – 7pm, drop in any time
Where	Royal Tara Motel 1 Stephen St, Binalong

CONTACT US

Write to us: EPURON Pty Ltd
Level 11, 75 Miller St
NORTH SYDNEY NSW 2060

Contact: Julian Kasby
Project Manager
Phone: 02 8456 7400
Fax: 02 9922 6645
Email: Yass-projects@epuron.com.au

EPURON

WIND FARM INFORMATION DAY

EPURON is proposing a wind farm on ridges in the Coppabella Range, Marilba Hills and Carrolls Ridge, approximately 20-35km west and south-west of Yass.

We're holding an open house in Binalong for the local community. It will allow you to learn more about the proposal, provide input and ask any questions.

Date: **Wednesday 10th December, 2008**
Time: **2pm-7pm (drop in any time)**
Place: **Motel Royal Tara**
Stephens St, Binalong

For further details, please contact:
Tim Browne, Ph: 6492 8333

EPURON PTY LTD
Level 11, 75 Miller St,
NORTH SYDNEY, NSW 2060
Fax 02 9922 6645

EPURON begins investigations of further potential for wind power in the Yass Region

Sydney, October 7, 2008: EPURON has commenced investigation into the feasibility of a wind farm to the west and south west of Yass in the NSW Southern Tablelands.

The area under investigation encompasses ridgeline areas along parts of Black Range, the Coppabella Hill's and Carroll's Ridge. Epuron expects there will be strong and consistent local wind speeds on the elevated areas that would be suitable for wind energy generation. The current investigation activities will enable EPURON to determine the wind farm configuration including turbine numbers and locations prior to presenting its concept plan to the community

"With careful consideration and planning, EPURON believes the wind farm can be developed with positive benefits to the environment and community." Project Director Simon Davey said.

EPURON values the input of the local community, the Council and other stakeholders in the planning of this project. Community consultation, at each stage of the process, will be incorporated into the project and this will include newsletters, open houses and media releases. The wind farm will be assessed under Part 3A of the Environmental Protection and Assessment Act, therefore the consent authority is the NSW Minister for Planning.

Investigations will include measurement of wind speeds at several locations and then assessment of noise propagation, flora and fauna (including bird and bat) investigations, assessment of aboriginal and European heritage values, visual impact studies (including photomontages to show what the wind farm might look like) and traffic and communications studies.

There is a necessity to reduce greenhouse gas emissions and wind farms provide efficient and reliable generation of clean renewable electricity into the electricity network. As costs associated with coal powered generation increase (and the price of carbon is factored in) renewable energy will play a significant role in meeting NSW's future energy needs.

Wind farms are good news for the environment, reducing greenhouse gas emissions and taking pressure off power stations that are suffering under drought and water shortages. They also bring jobs and investment to rural and regional NSW.

"By bringing forward this new project, not only do we ensure that this investment occurs within NSW, we also provide the capacity for a region like the Yass Valley to establish ongoing, long term, sustainable jobs through related service, construction and manufacturing industries. " Executive Director Andrew Durran said.

Further community updates will be regularly made as project proceeds. A community consultation day will be arranged later in the year to present details of the project.

Background

EPURON has received planning approvals for three projects in NSW to date: Snowy Plains (30 Megawatts, near Berridale), Cullerin Range (30 Megawatts, near Goulburn) and Conroy's Gap (30 Megawatts, near Yass). These three projects were sold to Origin Energy in January 2008. The Cullerin Range wind farm is now under construction. EPURON is currently developing the Gullen Range Wind Farm near Goulburn and, in partnership with Macquarie Capital, the Silverton Wind Farm in.

About EPURON

EPURON Pty Ltd is based in North Sydney and has been exploring wind resources in NSW since 2002. It is a subsidiary of EPURON GmbH, one of the world's leading project development and structured financing companies in the renewable energy sector. The company develops, finances, implements and operates solar and wind farms, solar thermal power stations as well as biogas and bio-ethanol plants.

Since its foundation in 1998, EPURON has financed and implemented over 60 large scale projects with a total capital cost of over 550 million euros. Its clients include institutional and private investors from many countries.

EPURON has subsidiaries or offices in Australia, Germany, Spain, France, Italy, Greece, Turkey, South Korea, India, Singapore and the USA. EPURON is a part of the listed company Conergy AG, a world leading company in wind, solar and other renewable power systems.

For further information about EPURON, please visit www.epuron.com.au or contact:

Martin Poole, Executive Director, phone 0411 159 114
Andrew Durran, Executive Director, phone 0407 206 199
Simon Davey, Project Director, phone 0405 735 260

EPURON PTY LTD
Level 11, 75 Miller St,
NORTH SYDNEY, NSW 2060
Fax 02 9922 6645

EPURON to host community information day for local wind energy projects

Sydney, December 3, 2008: EPURON is pleased to invite the local community to an information day on Wednesday 10th December to learn more about their proposal to build a wind farm on ridges in the Coppabella range, Marilba Hills and Carrolls Ridge to the west and south-west of Yass.

The purpose of the information day is to provide an opportunity for the community to see preliminary concepts of the proposal and preliminary results of the environmental studies as well as having the EPURON project team and specialists on hand to answer any questions.

"We are seeking input and comments from the community- which we see as essential to refining our proposal and developing the best possible wind farm on the site," Simon Davey, EPURON Project Director said.

"We hope that anyone who has questions, comments, concerns or just wants to learn more about this exciting project will come along and meet with our team of experts," Mr Davey said.

Date: **Wednesday 10th December, 2008**

Time: **2pm-7pm (drop in any time)**

Place: **Motel Royal Tara, Stephens St, Binalong**

EPURON has now submitted a Project Application to the Department of Planning seeking its requirements for the Environmental Assessment of the project. The Project Application is the first stage of the project approval process. It outlines the project under consideration sufficiently to allow the Department of Planning to specify its requirements in relation to EPURON's Environmental Assessment.

The Project Application was lodged following a Planning Focus Meeting (PFM) which was held on-site on the 14th and 15th of October. The PFM is a forum that enables relevant government agencies to provide input to the Department of Planning in formulating the environmental assessment requirements for the proposal.

Preliminary environmental investigations at the site have commenced and include background noise measurements, flora and fauna (including bird and bat) investigations, assessment of aboriginal and European heritage values, visual impact studies and traffic and communications studies. The results of these studies, along with community feedback, will enable EPURON to finalise the proposal (including the number and location of turbines, electricity connections and access roads) for submission to the Department of Planning in the coming months.

Media Contact: Andrew Bradley, Wilkinson Media (02) 8001 8888; 0403 777 137

For further information about EPURON, please visit **www.epuron.com.au** or contact Simon Davey, Project Director Ph: 0405 735 260

Attachment 9. COMMUNITY PERCEPTION STUDY

Wind Farm Impact Study - Southern Tablelands

a research report prepared for

EPURON
POWER FOR PORTFOLIOS

Simon Davey
Project Manager
EPURON Pty Ltd
Suite 104, 349 Pacific Highway
NORTH SYDNEY NSW 2060

Ref: EPURON 160707 AR
August, 2007

REARK pty ltd
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Research House 1338 Malvern Road Malvern VIC 3145
PO Box 6058 Cromer VIC 3193
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EXECUTIVE SUMMARY

The research study presented in this document was conducted in late July and early August in 2007. It was conducted in an election year and in an environment where media exposure has accelerated public interest and concern with the global warming issue, heightened awareness of alternative energy sources and subsequently has assisted related environmental issues capture more of the daily news agenda.

The respondents in this study were located in urban and rural locations in the Southern Tablelands of New South Wales. An area which included the existing Crookwell wind farm to the North of Goulburn together with adjoining areas in which wind farm developments had been announced and others planned. The research question was: What is the impact of the existing and proposed wind farm developments in the Southern Tablelands?

Prior to the conduct of this study we didn't know just how much adults living in the survey area knew of Crookwell or the other planned projects, or indeed what they knew, if anything, of wind farms or what the wind turbines that populated and powered them look like, let alone know what they actually did or how their attitudes might be influenced by the issue of global warming.

The outcomes of this study show, viz:

- 80% of respondents are concerned, right now, with the threat of global warming and its impact on the environment. A very high proportion, but down somewhat on the nine in ten respondents reflecting similar concerns in the national AC Neilsen survey conducted in October 2006 at the height of the drought. 16% said they were unconcerned.

- 50% of respondents felt *"Global warming is a serious and pressing problem [and] we should be taking steps now even if this involves significant costs".* We have called this group the 'act now' advocates and 97% of this group are 'concerned', right now, with the threat of global warming. This group is the most committed to accepting and adopting steps to address global warming and approaches the issue with a sense of urgency. It is biased toward females, those under 55 years of age and those with a university qualification. In the Lowy Institute national poll conducted 12 months ago, just on seven in ten respondents classified themselves in this category. The smaller proportion reflected in this study is perhaps reflective of a growing public conservatism with the issue of global warming due to the high level of media exposure the subject has received.

- 33% of respondents *felt "The problem of global warming should be addressed, but its effects will be gradual, so we can deal with the problem gradually"*. We have termed those in this group the 'gradual response' advocates and whilst two in three are concerned with the threat of global warming, one in three are not. In profile this group is biased toward males, those over 55 years of age and with a trade or tertiary education. They emerge as a conservative group.

- 17% of respondents make up the third of our global warming analysis groups and they felt *"Until we are sure global warming is really a problem, we should not take any steps that would have economic costs".* We have termed those in this group the 'Do not incur costs' advocates: six in ten are concerned with the threat of global warming, four in ten are not. In profile this group has a similar profile to the 'gradual response' group but are less urban with a bias towards those living out of town.

- 65% of respondents considered the existing Crookwell wind farm was located in their local rural area; 35% did not. An analysis of the demographic profiles of the two groups shows there is no significant difference in their profiles, other than where they conduct their major weekly grocery shopping. Nonetheless there is a difference

between these two groups in terms of their supportiveness of wind farm development in the Southern Tablelands. Those who do not consider the existing Crookwell wind farm to be in their local rural area tend to be much more conservative in their attitude to wind farm development in the Southern Tablelands. Experience counts.

- When respondents think of clean energy, they think of solar power (91%) and wind power (86%), well ahead of water or hydro-electric power (72%) and wave or tidal power (57%). But when you ask them to nominate acceptable power sources for a new power station to be built 10 kilometres from home, solar (82%) and wind power (81%) dominate. Given the choice of only one source of power for such a power station, 48% select solar and 41% select wind. In the absence of solar power, 80% select wind power as the preferred source of power for a new power station located 10 kilometres from home.

- 90% of respondents were aware of announcements of wind farms to be built in the Southern Tablelands, albeit only 32% could nominate Crookwell and 21% Taralga as prospective sites on an unaided basis. Despite the vagueness with respect to the name and location of prospective wind farm developments in the Southern Tablelands the consciousness of such activity was high.

- When it came to assessing respondents' understanding and knowledge of wind turbines and wind farms, we found:

    - 97% knew what a wind turbine was;
    - 93% had seen a picture of a wind turbine;
    - 89% had seen an actual wind turbine;
    - 83% were aware a wind farm was a collection of large wind driven wind turbines;
    - 90% had seen a wind farm;
    - 85% of those who had seen a wind farm, mentioned they had seen the Crookwell wind farm (unaided)
    - 67% of those who had seen a wind farm, found them to be visually appealing, only 15% did not.

- When it came to assessing the benefits and advantages of wind farms, the principal advantages mentioned, were, viz:

    - 56% Safe / low impact (on environment);
    - 49% Source of energy / power / electricity;
    - 21% Environment / friendly affect on the environment;
    - 15% Cost effective / low maintenance;
    - 4% No advantages.

- Whilst 40% of respondents perceived no disadvantages, the principal disadvantages mentioned, were, viz:

    - 29% Effect on the environment;
    - 18% Appearance;
    - 10% As a power source;
    - 6% Takes up a lot of space;
    - 5% The cost;
    - 3% Devaluates property
    - 2% Safety
    - 40% No disadvantages.

- Whilst respondents are prepared to be critical of wind farms, when it comes to a trade-off between clean energy and the landscape, 91% agreed: *"We need to use wind power as a source of clean energy even if it mean changing the appearance of some landscapes".*

- 89% of respondents were in favour of wind farm projects being developed in the Southern Tablelands. 5% were opposed.

- When it came to being specific about their attitudes to wind energy and wind farms, the adults surveyed in this community survey reflected the following, viz:

    - 96% agreed: *"Wind energy is a good alternative energy source".*
    - 92% agreed: *"Australia should be investing more in wind energy".*
    - 91% agreed: *"I would be happy to see more wind farms in Australia".*
    - 84% agreed: *"Local government should encourage wind farm development".*
    - 65% agreed: *"Wind farm developments contribute to the local economy"*
    - 83% agreed: *"I would be happy to see a wind farm built on farm land near where I live".*

- Placing a focus on the 'local rural area' of respondents, we found (as noted) that 65% of the adults resident in the defined survey area considered that the existing Crookwell wind farm was located in their local rural area: 35% did not. Nonetheless:

    - 94% were aware of the Crookwell wind farm;
    - 82% had seen the Crookwell wind farm;
    - 24% saw the Crookwell wind farm at least once a week – on average it was seen on at least 44 occasions each year by those who had seen it;
    - 68% lived more than 25 kilometres from the Crookwell wind farm
    - 85% were in favour of the Crookwell wind farm – in particular 89% of those who said the wind farm was in their local rural area vs 78% of those for whom the wind farm was not in their local rural area.

- We told respondents that scientific tests conducted at wind farms have shown that people need to be less than approximately 800 metres from the wind turbines for them to hear any significant noise, even in extreme wind conditions. Bearing that in mind we asked whether they would favour / oppose a wind farm if it was to be located at a given distance from where they lived now. We found:

    - 87% favoured a wind farm located 25 km from home (5% opposed)
    - 83% favoured a wind farm located 10 km from home (8% opposed)
    - 79% favoured a wind farm located 3 km from home (13% opposed)
    - 71% favoured a wind farm located 1 km from home (19% opposed)

- We introduced the concept of wind farm size, in terms of the number of wind turbines that comprised a given wind farm, by asking respondents whether or not they were aware of the following wind farm developments in the Southern Tablelands, viz:

    - 71% were aware of Crookwell 2 wind farm near Crookwell with 46 turbines;
    - 63% were aware of Taralga wind farm near Taralga with 69 turbines;
    - 59% were aware of the Gunning wind farm near Gunning with 32 turbines;
    - 54% were aware of Cullerin Range wind farm with 15 turbines
    - 51% were aware of Conroy's Gap wind farm near Yass with 15 turbines.

- We then asked respondents to consider whether they would favour or oppose wind farms of varying sizes in their local rural areas and found, viz:

    - 88% favoured a small wind farm of up to 15 turbines (7% opposed);
    - 76% favoured a 'typical' wind farm with 15 to 80 turbines (19% opposed); and
    - 61% favoured a large wind farm with greater than 80 and up to 120 turbines (32% opposed)

- When asked to consider how two 'typical' wind farms (ie 15 to 80 turbines) should be located in their local rural area, six in ten respondents indicated they would prefer the wind farms to be either adjacent or nearby each other. The remaining four in ten

preferred the second ‘typical’ wind farm to be located further away and out of sight of the first wind farm – on average about 20 kilometres away.

- Having introduced the concept of two ‘typical’ wind farms in their local rural area, we asked the respondents whether they would favour or oppose two ‘typical’ wind farms located in their local rural area. We then asked about three wind farms of this size and finally about four ‘typical’ wind farms each of 15 to 80 turbines located in their local rural area. We found the following, viz:

    - 76% accepted ONE typical wind farms with 15 to 80 turbines in their local rural area (19% opposed);
    - 75% accepted TWO typical wind farms with 15 to 80 turbines in their local rural area (17% opposed)
    - 64% accepted THREE typical wind farms with 15 to 80 turbines in their local rural area (27% opposed); and
    - 56% accepted FOUR typical wind farms with 15 to 80 turbines in their local rural area (34% opposed).

- In the event of the development of a number of ‘typical’ wind farms on the ridges and hills respondents can see when travelling along the main road or highway in the local rural area, respondents were evenly divided as to whether they should be concentrated in a few clusters, or spread out at reasonable intervals of 8 to 10 kilometres along the highway.

Those respondents with an ‘act now’ response to global warming make up to half the community surveyed. The adults who fall into this group are strong advocates for wind farms and some 62% of this group would, if necessary, favour four ‘typical’ wind farms in their local rural area versus only 51% for those in either the ‘Do not incur cost’ or ‘Gradual’ response groups. Those who hold the ‘act now’ response to global warming are quite clearly the drivers for the promulgation of the acceptance of alternative energy sources in the community. In the case of this study, they are the drivers of prospective wind farm development in the Southern Tablelands.

Experience living with wind farms also appears to be a powerful factor inducing the support of wind farm development. 61% of those who presently have a wind farm in their local rural area (ie Crookwell) favour four wind farms versus only 48% of those who don’t have a wind farm in their local area. Experience does count!

In terms of optimum development, it would certainly appear that even if the response to global warming wanes somewhat in future, the development of certainly two and perhaps three wind farms of 15 to 80 turbines in the local rural area would attract the support of six in ten adult residents. Higher acceptance levels are probable with the continued experience of living with wind farms in the local rural area. Clearly there is a point at which the addition of another ‘typical’ wind farm will produce a resounding ‘NO’ from the community. That point would appear to be beyond four ‘typical’ sites. Given the size and geographic scope of the Southern Tablelands, the five prospective wind farm developments in this area run across many ‘local rural areas’ and judging from the 89% who favour these developments in the Southern Tablelands they should attract nothing other than the full endorsement of a clear majority of residents in the Southern Tablelands.

INTRODUCTION

This report presents the outcome of a community survey based on 300 telephone interviews conducted with adult residents of a survey area in the Southern Tablelands of New South Wales in the Goulburn – Yass region. The survey area was selected as it bounds an area where an existing wind farm is located (Crookwell I) and also comprises an area in which future wind farms may be located. A map of the defined survey area may be found in the Appendix to this report. Fieldwork for this study was conducted during the evenings and on the weekend in the period commencing Friday, July 27, 2007 and concluding on Thursday evening, August 2, 2007

The research method and survey questionnaire used in this study was developed by REARK Pty Ltd in conjunction with executives of Environmental Resources Management [ERM] and EPURON Pty Ltd. The study is part of a wider project to be conducted by ERM on behalf of EPURON.

The broad focus of the community survey reported here is to provide a benchmark measure of the community's awareness and acceptance of wind farm development as it exists now in the defined survey area with a view to also providing an insight into the likely cumulative community impact of further wind farm development in this area of the Southern Tablelands.

When reading the report it is important to understand this study has been conducted against the background of community discussion concerning global warming and the consequent interest in the development of alternative energy sources.

Wind farms are not a new phenomenon in Australia. Indeed, Australia's first wind farm was commissioned in 1993 near Esperance in Western Australia. By the end of 2006 there were some 27 wind farms in operation in Australia. Until recent years a wind farm was little more than a curiosity for the average Australian with the early wind farm developments located in more remote, less traveled regions of Australia. However, since 2000 growing concern with 'global warming' has stimulated public interest and curiosity in alternative energy sources and increasingly more Australians have become familiar with the issue and potential alternative forms of power generation.

By late July, 2007, the time when this survey was conducted, news items and articles dealing with 'global warming' and with specific alternative energy sources such as wind and solar power had become almost commonplace. Several years ago news items concerning such issues were buried more deeply in the general news, but in recent times these issues have gradually moved more to centre stage in the news media. No doubt John Howard's announcement in June, 2006 stating the Federal Government had an 'open-mind' on the construction of nuclear power plants in Australia and the former Vice-President Al Gore's much publicised documentary "An Inconvenient Truth" released in November, 2006 and the recent ABC TV series "Carbon Cops" are reflective of media exposure which has accelerated the public interest and concern with the global warming issue, heightened awareness of alternative energy sources and subsequently has assisted related environmental issues capture more of the news foreground.

It is against this background the community survey reported in this document was conducted. Moreover, the community in question is distinguished by the fact that it is located in an area adjacent to or in the vicinity of existing, approved and proposed wind farm developments. In the pages to follow we outline the Research Objectives set for the survey and provide the survey results in detail.

RESEARCH OBJECTIVES

It has been hypothesized community attitudes to wind farms are inextricably bound to attitudes to global warming and the perceived urgency of the need to adopt alternative clean energy sources as a means of ameliorating the impact of global warming. In developing the detailed information objectives for this study we were mindful of contemporary research undertaken by the Lowy Institute and others, including a similar recent study conducted by REARK.

For this survey, interviews were conducted amongst adult residents who lived adjacent to, or in the vicinity of, the existing Crookwell wind farm situated in the vicinity to the North of Goulburn in New South Wales together with those residing in the immediate adjoining areas in which wind farm developments had been announced and others planned – a region termed the Southern Tablelands. The research question was: What is the impact of the existing and proposed wind farm developments in the Southern Tablelands?

To address this question it was determined to measure, in the context of the concern for global warming, the perceptions, experience and expectations of the community residing in the defined survey area based on what they know and understand wind farms to be. The community survey was therefore designed to satisfy the following research objectives, viz:

- Level of community concern with the issue of global warming and perceived responses to this threat;
- Perceptions of clean energy sources and personal preferences;
- Awareness, knowledge and perceptions of wind turbine generators, wind farms and wind farm projects in the Southern Tablelands and specifically in the local area;
- Perceived benefits and advantages/disadvantages of wind farms;
- Attitudes to the construction of wind farms in terms of the trade off between clean energy and landscape; favour/oppose wind farm development in the Southern Tablelands; perceived need for wind energy and perceptions of location close to home;
- Awareness and assessment of existing wind farms and those planned for the local region;
- Perceptions of proximity in wind farm location and progressive acceptability of an increasing number of clusters of wind farm developments in the direct vicinity of the community.

These information objectives were incorporated into the questionnaire employed for the community survey. A copy of the questionnaire in outline form is provided in Appendix II.

A map showing the boundaries of the area in which the community survey was conducted may be found in Appendix I, which also contains details of the research method employed, including a summary of the sampling procedure and call statistics arising from the sampling implementation and fieldwork.

The outcomes from this research are presented on the pages to follow.

RESULTS IN DETAIL

In these pages we present the principal outcomes of this study. The tables presented in this report have been drawn from the Detailed Tabular Results which have been presented separately and which contain a complete analysis of all questions asked in the survey questionnaire. The reference to "DTR Table" contained within the various tables in this report refers to the table number within the Detailed Tabular Results from which the table presented was drawn.

1. Attitudes to global warming

Global warming is commonly defined as an increase in the temperature of the earth's atmosphere and in particular a sustained increase sufficient to cause climate change on a global scale. The scientific consensus is that most of the global warming that has occurred over the last 50 years has its source in human activity. The source of this human-induced activity is the release of carbon dioxide and other greenhouse gases into the atmosphere by the burning of fossil fuels, land clearing and agriculture leading to an increase in the greenhouse effect.

Given there is an active discussion concerning global warming in the media and as part of our daily lives, we wanted to establish as a benchmark within the survey area, the level of concern, if any, that exists within the community and how they felt we should be dealing with the problem.

Table 1: Concern with the threat of Global Warming

Q.1 Recently there has been much discussion in newspapers on radio and television concerning global warming … Overall how concerned would you say you are right now with the threat of global warming and its impact on the environment … would you say you are … *(read out)*	
DTR Table: 4.0	TOTAL
WEIGHTED BASE	300
	%
Q1 Overall concern with the threat of global warming and its impact on environment	
Definitely concerned (5)	32%
Somewhat concerned (4)	48%
or, Neither concerned or unconcerned (3)	4%
Somewhat unconcerned (2)	9%
Definitely unconcerned (1)	8%
TOTAL CONCERNED	80%
TOTAL UNCONCERNED	16%
TOTAL	100%
MEAN	3.88
STD DEV	1.18
STD ERR	0.07

As Table 1 shows eight in ten adults say they are concerned, right now, with global warming and its impact on the environment. Less than two in ten say they are 'unconcerned'. 'Concern' as measured here, albeit in a regional area of only one State, is down somewhat when compared to the national 'Wind Energy Study' conducted with a national sample of n = 1505 in October, 2006 when, at the height of the drought, some nine in ten Australians indicated they were 'concerned about environmental issues and climate change'.

Earlier, in July, 2006 the Lowy Institute conducted a national poll of Australians and asked them which of three alternatives best reflected the way they felt about global warming. We asked the same question in this study in order to obtain a reflection of current feeling, albeit from a regional area in only one State, to establish a relative benchmark following the passage of 12 months.

Table 2: Statements concerning global warming

Q.2 Which one of the following statements comes closest to the way you feel *(read out)*					
DTR Table: 5.0			Q1 Concern with Global Warming		
	Lowy Institute National Poll July 2006	TOTAL	Concerned	Neither concerned unconcerned	Unconcerned
WEIGHTED BASE	1007	300	240	11	49
	%	%	%	%	%
Q2 Statement which comes closest to feeling					
Global warming is a serious and pressing problem. We should be taking steps now even if this involves significant costs.	68%	50%	61% +++	8%	7% ---
Until we are sure that global warming is really a problem, we should not take any steps that would have economic costs.	7%	17%	12% ---	24%	41% +++
The problem of global warming should be addressed, but its effects will be gradual, so we can deal with the problem gradually	24%	33%	27% ---	68%	52% ++
Don't Know	1%	-	-	-	
TOTAL	100%	100%	100%	100%	100%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---					

What Table 2 suggests is a growing conservatism in respondents' attitudes to the appropriate response to global warming. In the Lowy Institute Poll 12 months ago just on seven in ten Australians felt global warming is *"a serious and pressing problem [and] we should be taking steps now even if this involves significant costs"* . In the community survey just undertaken only five in ten are demanding an immediate response – a significant difference and a marked downward shift in the urgency of the issue relative to 12 months ago. Indeed compared to the Lowy Institute Poll we can see a migration away from an immediate response to a more gradual response (reflected by three in ten) and a more conservative approach against taking steps that would incur economic costs mentioned by nearly two in ten.

Notwithstanding the decline in urgency, relative to the Lowy Institute Poll, it is nonetheless clear that more than eight in ten respondents are calling for some response albeit gradual in many cases.

Table 2 shows those who expressed 'concern' with the issue of global warming weren't all advocating immediate steps be taken to address the issue. Whilst six in 10 were advocating such a response, of the balance nearly three in ten were suggesting a gradual response, whilst about one in ten were advocating do not incur

economic costs until we are sure global warming is really a problem. An outcome that is similar to the Lowy Institute Poll in July, 2006.

Those who indicated they were 'unconcerned' with the global warming issue were more inclined to a gradual response (52%) or averse to incurring economic costs until we are sure global warming is a problem (41%).

2. Clean energy sources

As we noted in the introduction to this report there has been much public discussion and many media reports addressing the issue of clean energy. We asked respondents in this study, which energy sources they felt were clean.

As Table 3 shows sun or solar power emerges ahead of those nominated, marginally ahead of wind power. Indeed just on nine in ten respondents mentioned these two energy sources.

Water or hydroelectric power (69%) and wave or tidal power (57%) were also mentioned by a majority of respondents, albeit at a significantly lower level than solar or wind power. Nuclear power was mentioned by two in ten.

There was no significant difference in the response when analysed by the respondents' response to global warming, save that clean coal or gas fuelled power stations where pollutants are buried was nominated by a significantly greater proportion (20%) than the sample as a whole (14%).

Table 3: Identification of clean energy sources

Q.3 Australia's demand for electricity is rapidly increasing. There are a number of ways of meeting this demand one of which involves the use of 'clean energy' sources. Which of the following do you regard as clean energy sources … *(read out)*?
RANDOMISE ORDER

DTR Table: 6.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q3 Regard as clean energy sources				
Sun or solar power	91%	93%	85%	91%
Wind power	86%	89%	78%	86%
Water or hydroelectric power	69%	67%	74%	67%
Wave or tidal power	57%	57%	44%	63%
Nuclear power	20%	16%	26%	24%
Clean coal or gas fuelled power stations where the pollutants are buried	14%	8% --	18%	20% +
TOTAL	336%	331%	325%	350%

Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---

3. Clean energy and personal preferences close to home

In order to obtain a measure of respondents' preferences for clean energy sources, we sought to make the choice more realistic by asking which of the clean energy sources we had mentioned they would approve for use in a new electric power station if it was to be built within 10 kilometres of where they live. The outcome is shown in the first column in Table 4 below. Not surprisingly eight in ten respondents selected

solar and wind power as approved energy sources for the new power station within 10 kilometres of their home.

As each respondent had nominated about two energy sources, we asked respondents (in Q.4B) to nominate which one energy source they would prefer. The outcomes are shown in the second column of Table 4 below and these have been analysed by respondents' responses to the threat of global warming.

Table 4: Energy sources for a new power station

Q.4A If there was to be a new electric power station built say within 10 kilometres of where you now live, which of the following energy sources would you approve for use by that new power station? Would you approve … *(read out)* Q.4B IF MORE THAN ONE: And which one energy source would you prefer to see used by such a new power station? RANDOMISE ORDER					
DTR Tables: 7.0 & 8.0	Q.4A	Q.4B	Q2 Response to Global Warming		
	TOTAL	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	300	150	52	98
	%	%	%	%	%
Q4A Power station built within 10 kilometres - energy sources approved					
Q4B One energy source prefer to see used by new power station					
Sun or solar power	82%	48%	53%	41%	43%
Wind power	81%	41%	40%	40%	42%
Clean coal or gas where the pollutants are buried	16%	3%	2%	5%	4%
Nuclear power	14%	4%	2%	6%	6%
None of these	3%	3%	1%	6%	4%
Don't know	2%	2%	2%	2%	2%
TOTAL	198%	100%	100%	100%	100%

When it came to choosing just one energy source solar power (48%) emerges marginally ahead of wind power (41%). The other energy source choices languish well behind.

In order to force a choice between solar and wind power, we asked respondents which energy source they would select if solar power was not included and the choices available were restricted to wind power, clean coal or gas or nuclear power. In these circumstances, as is shown in Table 5 below, wind power (80%) emerged as the clearly preferred energy source for a new power station within 10 kilometres of respondents' homes.

It is interesting to note that those whose response to global warming was 'act now despite the costs' had a stronger preference (85%) than the sample overall and significantly greater than those who were opting for a 'gradual response' (73%) to global warming.

Table 5: Choice between wind, coal and nuclear

Q.4C If the choice was between (*read out list*) … which one energy source would you prefer to see used by such a new power station? RANDOMISE ORDER				
DTR Table: 9.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q4C Power source prefer to see used by such a new power station – excludes solar				
Wind power	80%	85% +	78%	73% -
Clean coal or gas where the pollutants are buried	9%	7%	12%	11%
Nuclear power	7%	5%	7%	9%
None of these	1%	0%	0%	3% +
Don't know	3%	3%	2%	3%
TOTAL	100%	100%	100%	100%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---				

4. Awareness of wind farms

In order to establish attitudes to wind farms later in the questionnaire, we introduced respondents to the topic of wind farms and wind turbines via a reference to recent announcements concerning the construction of wind farms in the Southern Tablelands in New South Wales (ie the area in which the study was conducted). We asked respondents whether or not they had heard of such projects before the conduct of this study.

Table 6: Awareness of wind farms

Q.5A Recently there have been announcements of wind-farms to be built in the Southern Tablelands, encompassing the Goulburn-Yass region, to generate electricity … had you heard of any of these projects before today?				
DTR Table: 10.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q5A Heard of southern tablelands, encompassing the Goulburn-Yass region projects				
Yes	90%	88%	97%	90%
No	9%	12%	2%	10%
Don't Know	1%	0%	2% -	0%
TOTAL	100%	100%	100%	100%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---				

Table 6 shows that nine in ten respondents were aware of wind farm projects in the Southern Tablelands. A very high proportion indeed.

As a follow-up to that question, we asked respondents if they could nominate the name(s) and/or the location of the wind farm projects they were aware of. In Table 7

below, we have put forward the full range of project 'names' nominated by respondents.

Table 7: Names of wind farm projects in the Southern Tablelands

Q.5B Which project or projects was that? (*record name and/or location of project*) *Probe once*: Any others?				
Filter: "Yes" in Q5A Heard of wind farm projects in Southern Tablelands				
DTR Table: 11.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	270	131	50	89
	%	%	%	%
Q5B Name of project				
CROOKWELL	20%	21%	15%	20%
TARALGA WIND FARM	16%	14%	10%	21%
YASS	6%	6%	3%	6%
CONROYS GAP WINDFARM	5%	4%	4%	5%
WIND POWER / TURBINE	4%	1% --	11% ++	6%
CULLERIN	4%	3%	3%	7%
WIND FARM	4%	8% ++	2%	0% -
GUNNING	3%	2%	1%	5%
WOODLAWN	2%	2%	2%	4%
CULLIN RANGE WIND FARM	2%	4% +	0%	0%
GOULBURN	2%	2%	2%	1%
BLACK RANGE	1%	2%	0%	0%
CANBERRA	1%	1%	0%	1%
COLOURING RANGES	1%	1%	0%	1%
OBERON	1%	0%	2%	1%
BANNISTER	1%	1%	0%	1%
GULLIN RIDGE WINDFARM	1%	0%	0%	2%
CROOKLAND	1%	0%	0%	2%
BREDALIBAE	1%	0%	0%	2%
THE WOODLINE	1%	0%	0%	2%
GUNDARINGA PROPERTY	1%	1%	0%	0%
BUNDASL OR BRADEWOOD	1%	1%	0%	0%
QUEENBIEN WAY	1%	1%	0%	0%
GRABBEN GULLEN	1%	0%	3% +	0%
ORANGE	0%	1%	0%	0%
CURRAWANG	0%	0%	2% +	0%
GURRANDAH	0%	0%	2% +	0%
WOODBURN	0%	0%	0%	1%
MURRUNBATEAN	0%	1%	0%	0%
TARAGO	0%	1%	0%	0%
NUCLEAR POWER STATION	0%	0%	2% +	0%
RODALBIN	0%	1%	0%	0%

Q.5B Which project or projects was that? (*record name and/or location of project*) *Probe once*: Any others?				
Filter: "Yes" in Q5A Heard of wind farm projects in Southern Tablelands				
DTR Table: 11.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	270	131	50	89
	%	%	%	%
KIALLA	0%	1%	0%	0%
ALL OF THEM	0%	0%	0%	1%
EPPRON	0%	1%	0%	0%
SPRING RANGE	0%	0%	2%	0%
ALLADUILLA SHIRE	0%	0%	2%	0%
ACT BOARDER	0%	0%	2%	0%
COLLEX	0%	0%	0%	1%
TARAGA	0%	1%	0%	0%
WINDELLAMA	0%	0%	0%	1%
BUNGENDORE	0%	0%	0%	1%
TALGANDRA	0%	0%	1%	0%
LAKE GEORGE	0%	1%	0%	0%
DON'T KNOW	15%	19%	10%	10%
Not answered	30%	24% + -	41%	32%
TOTAL	126%	122%	122%	135%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---				

Table 7 shows the names of wind farm projects provided by the 90% of respondents who were aware of wind farm projects in the Southern Tablelands. Inspection of the table shows that of those who were aware of projects some 45% could not nominate a name of a wind farm project. Of those who could, Crookwell (20%) and Taralga (16%) were the most frequently mentioned.

Similarly, in Table 8 we have provided the locations of wind farm projects nominated by the 90% of respondents who claimed awareness of wind farm projects in the Southern Tablelands.

Table 8: Locations of wind farm projects in the Southern Tablelands

Q.5B Which project or projects was that? (*record name and/or location of project*) *Probe once*: Any others?				
Filter: "Yes" in Q5A Heard of wind farm projects in Southern Tablelands				
DTR Table: 12.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	270	131	50	89
	%	%	%	%
Q5B Location of project				
CROOKWELL	32%	35%	27%	29%
TARALGA / TRARALGA	21%	18%	21%	25%
YASS	10%	10%	13%	7%
GOULBURN	9%	10%	9%	7%
CONROYS GAP	7%	7%	8%	7%

Q.5B Which project or projects was that? (*record name and/or location of project*) *Probe once*: Any others?				
Filter: "Yes" in Q5A Heard of wind farm projects in Southern Tablelands				
DTR Table: 12.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	270	131	50	89
	%	%	%	%
GUNNING	5%	3%	8%	7%
CULLERIN	4%	2%	2%	7% +
TARAGO	2%	3%	0%	1%
GULLEN	2%	2%	3%	0%
MURRUMBATEMEN / MURRUNBATEAN	1%	2%	0%	0%
WOODLAWN	1%	0%	2%	2%
PARKSBOURNE	1%	2%	0%	0%
WALWA	1%	0%	4% ++	0%
BIGGA	1%	0%	4% ++	0%
KIALLA	1%	0%	2%	1%
ORANGE	1%	1%	0%	1%
PEJAR	1%	0%	2%	1%
NEAR BOOKHAM	1%	0%	0%	2%
IN THE TABLELANDS	0%	0%	2% +	0%
GUNDOWINGA	0%	0%	2% +	0%
WOODBURN	0%	0%	0%	1%
BLAINY	0%	1%	0%	0%
BANASTA AREA	0%	0%	0%	1%
WARRANGORORY	0%	0%	0%	1%
SPRING RANGE	0%	0%	2%	0%
COLAMARRI RANGES	0%	0%	2%	0%
WALLA WALLA	0%	0%	0%	1%
BOWING	0%	1%	0%	0%
LETTON	0%	0%	0%	1%
BREADALBANE	0%	0%	1%	0%
TARADALE	0%	1%	0%	0%
BLACKRANGE RD	0%	1%	0%	0%
LAKE GEORGE	0%	1%	0%	0%
Not answered	22%	24%	15%	24%
TOTAL	124%	122%	128%	124%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---				

Unlike the previous table, where just under half the respondents who claimed awareness of wind farm projects in the Southern Tablelands were unable to name the project, only two in ten were unable to nominate a location. The most frequently mentioned locations were Crookwell (35%) and Taralga (21%). Amongst those who could nominate a location, a very wide range of locations were nominated.

It is clear from the outcomes presented here that a very high proportion of respondents in the survey area were aware of the term 'wind farm' and had a high

level of awareness, albeit somewhat vague as to name and location in some instances of prospective wind farm projects.

5. Perceptions and knowledge of wind turbines

To ensure that all respondents were aware of what a wind turbine was, in the question to follow, we provided a description of a wind turbine and asked respondents whether or not they were aware of wind turbines as described.

Table 9: Awareness of wind turbines

Q.6 The electricity from these projects is to be generated via the placement of a number of wind turbine generators in each area. Each generator is a large three bladed windmill mounted up high on top of a tubular tower and the wind turns the blades to generate the electric power … A. Were you aware of this type of wind turbine before today?				
DTR Table: 13.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q6A Aware of wind turbine				
Yes	97%	98%	99%	96%
No	3%	2%	1%	4%
Don't Know	0%	0%	0%	1%
TOTAL	100%	100%	100%	100%

In view of the near total awareness of wind turbines, it is not surprising there was a correspondingly high proportion of those adults resident in the survey area who claimed to have either seen a picture of a wind turbine or had seen an actual wind turbine of the type described, viz:

Table 10: Visual experience of wind turbines

Q.6B Have you seen a picture of a wind turbine of the type I have described? Q.6C And have you ever seen an actual wind turbine of the type I have described?				
DTR Table: 14.0 & 15.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q6B Seen a picture of a wind turbine				
Yes	93%	91%	97%	93%
No	6%	8%	3%	6%
Don't Know	1%	1%	0%	1%
Q6C Seen an actual wind turbine				
Yes	89%	91%	91%	86%
No	11%	9%	9%	14%
TOTAL	100%	100%	100%	100%

As the preceding tables demonstrate, adults living in the survey area were informed with respect to the components of a wind farm: nearly all being aware of what a wind turbine is, having seen a picture of one and in most, if not all cases, having seen an actual wind turbine.

6. Awareness and perceptions of wind farms

Whilst most respondents were aware of announcements concerning wind farm projects in the Southern Tablelands and nearly all had an appreciation of what a wind turbine was, we needed to be certain as to what respondents thought wind farms to be. Accordingly, we read a description of a wind farm to respondents and asked them if they were aware of wind farms as described, whether they had seen a wind farm and the location of the wind farm(s) they had seen.

The outcomes of the questioning approach, as shown in Table 11 below, revealed that slightly more than eight in ten respondents were aware of what wind farms were and their power generating capacity prior to the conduct of the survey. Further some nine in ten respondents claimed to have seen a wind farm, reflecting that around one in ten were not aware of its power generating capacity.

Table 11: Awareness and exposure to wind farms

Q.7 A wind farm is a collection of large wind-driven wind turbines of the type I have described … an average to large wind farm makes enough electricity to power a large regional centre …
A Were you aware of this before today?
B Have you ever seen a wind farm?

DTR Table: 16.0 & 17.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q7A Aware a wind farm is a collection of large wind driven wind turbines				
Yes	83%	80%	86%	85%
No	14%	16%	10%	13%
Don't Know	3%	4%	4%	2%
Q7B Ever seen a wind farm				
Yes	90%	90%	96%	87%
No	10%	10%	4%	13%
TOTAL	100%	100%	100%	100%

When those who had claimed to have seen a wind farm (90%) were asked to nominate where they had seen it, there were many places in Australia and overseas nominated. However, demonstrating a very high awareness of the existence of the site, 85% of respondents mentioned Crookwell.

7. Visual appeal of wind farms

An understanding of the foot print of a wind turbine and subsequently a wind farm has on the landscape where it is situated is potentially an important driver of attitudes to wind farms. Accordingly we asked those respondents who had seen a wind farm (90%) how visually appealing they found them. For the balance, that is those who

had not seen a wind farm (10%) we asked them how visually appealing they would expect a wind farm to be.

Table 12: Visual appeal of wind farms

Q.8A IF SEEN: How visually appealing do you find the wind farms you have seen?				
Filter: Q7B EVER SEEN A WIND FARM Yes				
DTR Table: 19.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	270	135	50	86
	%	%	%	%
Q8A Visually appealing find wind farms				
Very appealing (5)	24%	26%	25%	22%
Fairly appealing (4)	43%	42%	37%	47%
or Do you not have an opinion about it (3)	17%	15%	25%	17%
Not too appealing (2)	10%	13%	3%	8%
Not at all appealing (1)	6%	4% +	10%	6%
TOTAL APPEALING	67%	68%	62%	69%
TOTAL NOT APPEALING	15%	17%	13%	14%
TOTAL	100%	100%	100%	100%
MEAN	3.7	3.73	3.63	3.71
STD DEV	1.11	1.11	1.2	1.09
STD ERR	0.07	0.1	0.17	0.11
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---				
Q.8B IF NOT SEEN: How visually appealing would you expect a wind farm to be?				
Filter: NOT (Q7B EVER SEEN A WIND FARM Yes)				
DTR Table: 20.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	30	15	2	13
	%	%	%	%
Q8B Visually appealing expect wind farm to be				
Very appealing (5)	5%	6%	0%	6%
Fairly appealing (4)	29%	24%	0%	40%
or Do you not have an opinion about it (3)	28%	41%	0%	19%
Not too appealing (2)	24%	21%	52%	22%
Not at all appealing (1)	13%	7%	48%	14%
TOTAL APPEALING	34%	30%	0%	46%
TOTAL NOT APPEALING	37%	29%	100%	36%
TOTAL	100%	100%	100%	100%
MEAN	2.9	3	1.52	3.02
STD DEV	1.14	1.03	0.67	1.23
STD ERR	0.2	0.26	0.47	0.34

As Table 11 shows, two in every three respondents who had seen a wind farm (67%) found them to be visually appealing. 17% had no opinion and only 16% found them to be not visually appealing. For those 10% of respondents who claimed not to have seen a wind farm, they were evenly divided between those who expected them to be

visually appealing (34%), not visually appealing (37%) and those who had no opinion (28%).

8. Perceived benefits or advantages of wind farms

We asked respondents to tell us in their own words what they perceived to be the benefits or advantages of wind farms. The principal benefits/advantages as summarised in Table 13, were, viz:

- 56% Safe / low impact
- 49% Source of energy / power / electricity
- 21% Environment / friendly affect on the environment
- 15% Cost effective / low maintenance
- 4% No advantages

As is reflected in Table 13 below few respondents (3%) failed to nominate a benefit or advantage. Wind farms were clearly identified as a power source that was friendly to the environment, safe and had a low impact on their surroundings.

Table 13: Perceived benefits or advantages of wind farms

Q.9 Thinking about wind farms as I have described them …
a) What do you consider the major benefits or advantages of wind farms to be? Probe: "What else?

DTR Table: 21.0 R		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q9A Benefits / advantages of wind farms				
Environment/friendly affect on the environment				
ENVIRONMENTALLY FRIENDLY/NO IMPACT ON THE ENVIRONMENT	13%	15%	15%	9%
VISUALLY APPEALING/AESTHETIC	3%	4%	0%	4%
QUIET/NOT MUCH NOISE	3%	4%	3%	2%
NO WASTE	2%	4%	2%	1%
ADDRESSES GLOBAL WARMING	1%	3%	0%	0%
Nett: Environment / Friendly affect on the environment	21%	26% +	18%	15%
Source of energy / power / electricity				
NATURAL ENERGY/RESOURCE	11%	10%	11%	13%
SAVES ON FOSSIL FUEL / COAL / OTHER RESOURCES	10%	11%	6%	10%
RENEWABLE ENERGY	9%	11%	4%	9%
FREE GENERATING/FREE ENERGY SOURCE	7%	5%	12%	8%
HARNESS ENERGY THAT IS ALREADY THERE	6%	6%	3%	7%
CAN GENERATE ELECTRICITY/POWER	6%	5%	12%	4%
GOOD SOURCE OF ENERGY/UNLIMITED/SUSTAINABLE	5%	5%	5%	6%
GREEN POWER	2%	3%	0%	1%
CAN SUPPLY ENERGY TO A SMALL COMMUNITY /REMOTE AREA	0%	0%	0%	1%

Q.9 Thinking about wind farms as I have described them … a) What do you consider the major benefits or advantages of wind farms to be? Probe: "What else?				
DTR Table: 21.0 R		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q9A Benefits / advantages of wind farms				
Nett: Source of energy / Power / Electricity	49%	49%	43%	53%
Cost effective / low maintenance				
COST EFFECTIVE/ECONOMICAL	12%	11%	11%	13%
VERY EFFICIENT	2%	1%	3%	4%
LOW MAINTENANCE	2%	1%	8% +++	1%
Nett: Cost effective / low maintenance	15%	12%	17%	18%
Safe/ low impact				
CLEAN ENERGY / NO POLLUTION / CARBON BASED EMISSIONS	55%	57%	44%	58%
SAFE/DON'T DO ANY DAMAGE	1%	2%	0%	1%
LOW AGRICULTURAL IMPACT	1%	2%	0%	0%
MINIMUM DISRUPTION TO ACTIVITIES	0%	1%	0%	0%
Nett: Safe / low impact	56%	59%	44%	58%
Other mentions				
SOURCE OF INCOME FOR LANDOWNERS/FARMERS	3%	4%	2%	1%
WILL BENEFIT FUTURE GENERATIONS	0%	0%	3% +	0%
PROVIDES EMPLOYMENT	0%	0%	0%	1%
Nett: Other mentions	3%	4%	5%	2%
DON'T KNOW	1%	1%	1%	0%
NONE	3%	2%	7%	3%
Nett: None/Don't Know	4%	3%	8%	3%
TOTAL	160%	167%	151%	155%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---				

9. Perceived disadvantages of wind farms

Respondents were also asked to nominate what they believed to be the disadvantages, if any, they associate with wind farms. The principal disadvantages mentioned by respondents and as summarised in Table 14 below are:

- 29% Effect on the environment
- 18% Appearance
- 10% As a power source
- 6% Takes up a lot of space

- 5% The cost
- 3% Devaluates property
- 2% Safety
- 40% None/DK

About four in ten respondents were unable to nominate a disadvantage they associate with wind farms. By far the greatest disadvantages mentioned related to the visual appeal and the noise or humming emanating from the turbines.

Table 14: Perceived disadvantages of wind farms

Q.9 Thinking about wind farms as I have described them … b) And what disadvantages, if any, do you associate with wind farms? Probe: "What else?"				
DTR Table: 22.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q9B Disadvantages associated with wind farms				
Appearance				
AESTHETICALLY UNAPPEALING/VISUALLY UNATTRACTIVE/SPOILS THE LANDSCAPE	18%	18%	18%	18%
Nett: Appearance	18%	18%	18%	18%
Effect on the environment				
THE NOISE/HUMMING SOUND	24%	24%	30%	20%
HAZARD TO WILDLIFE/BIRDS	8%	7%	11%	9%
STRUCTURE'S LIMITED LIFE SPAN	1%	1%	0%	3%
Nett: Effect on the environment	29%	27%	37%	27%
As a power source				
NOT SUSTAINABLE/UNRELIABLE/RELY ON THE WEATHER	7%	6%	11%	7%
CAPACITY TO PRODUCE POWER IS LOW	3%	3%	2%	3%
Nett: As a power source	10%	9%	14%	9%
The cost				
THE COST OF BUILDING THE TURBINES	2%	2%	6%	2%
THE COST/NOT COMMERCIALLY VIABLE	2%	2%	2%	1%
MAINTENANCE COST	1%	2%	0%	0%
Nett: The cost	5%	6%	8%	3%
Safety				
THE TECHNOLOGY IS OUTDATED	1%	2%	0%	0%
SAFETY CONCERNS/CAN TRIGGER FIRES	1%	1%	0%	1%
Nett: Safety	2%	2%	0%	1%
Other				

Q.9 Thinking about wind farms as I have described them … b) And what disadvantages, if any, do you associate with wind farms? Probe: "What else?"				
DTR Table: 22.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q9B Disadvantages associated with wind farms				
TAKES UP A LOT OF SPACE	6%	5%	5%	9%
DEVALUATION OF PROPERTY	3%	4%	4%	1%
COMMUNITY DISHARMONY/RESIDENTS TAKING OPPOSING VIEWS	2%	3%	0%	2%
TOO CLUSTERED IN SOME AREAS	2%	2%	0%	2%
ENVIRONMENTAL DISTURBANCES	1%	2%	0%	0%
NOT ENOUGH INFORMATION	1%	1%	0%	2%
THE POLLUTANTS CREATED IN CONSTRUCTING THE TOWER	1%	1%	0%	0%
USES FOSSIL FUEL IN OPERATION	0%	0%	0%	1%
Nett: Other	15%	17%	9%	16%
DON'T KNOW	3%	2%	1%	6% +
NONE	37%	37%	36%	37%
Nett: None/Don't Know	40%	39%	37%	43% +
TOTAL	124%	124%	127%	122%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---				

10. Attitudes to the construction of wind farms

Having established the respondents' awareness, knowledge and perceptions of wind farms, in the next section of the questionnaire we sought to examine specific attitudes of respondents to a variety of specific issues relating to the construction of wind farms.

10.1 Trade-off: clean energy vs landscape

As was evident in the preceding section, a criticism of wind farms by some is their negative affect on landscape values in the areas where they are sited. We posed the question to respondents as to whether or not they were prepared to sacrifice landscape value in order to obtain clean energy from wind farms. We did so by asking which of two statements came closest to the way they felt, viz:

Table 15: Clean energy vs landscape

Q.10 Wind farms provide clean, renewable energy that doesn't contribute to global warming through generating carbon dioxide. Some people say they detract from the appearance of the landscape. Which of these two statements comes the closest to the way you feel *(read out)*				
DTR Table: 23.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	146	51	103
	%	%	%	%
Q10 Statement which comes closest to feelings				
We need to use wind power as a source of clean energy even if it means changing the appearance of some landscapes, or	91%	92%	90%	91%
We should leave the landscapes unchanged even if it means we are not able to use wind power as a source of clean energy	9%	8%	10%	9%
TOTAL	100%	100%	100%	100%

As the outcome of Table 15 shows, nine in ten adults in the survey area would choose wind power as a source of clean energy, even if it resulted in changing some landscapes. There was no statistically significant difference between the responses of each of the three global warming analysis groups.

10.2 Favour or oppose wind farm projects in the Southern Tablelands

Although they may have been somewhat vague as to the project name or location, as shown in Table 6, nine in ten adults in the survey area were aware of wind farm projects in the Southern Tablelands. We asked respondents whether they favoured or opposed these projects.

Table 16: Favour or oppose wind farm projects in the Southern Tablelands

Q.11 Taking into account the arguments you have heard for and against wind farms, what is your general opinion of the wind farm projects like those being built in the Southern Tablelands … would you say you were (*read out*)				
DTR Table: 24.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q11 Opinion of wind farm projects built in the Southern Tablelands				
Strongly in favour (5)	51%	60% ++	41%	43% -
Generally in favour (4)	38%	33%	49%	41%
or... do you not mind one way or the other? (3)	6%	5%	2%	9%
Generally opposed (2)	3%	2%	2%	4%
Strongly opposed (1)	2%	0%	6%	3%
TOTAL IN FAVOUR	89%	93%	91%	84% -
TOTAL OPPOSED	5%	2%	8%	7%
TOTAL	100%	100%	100%	100%
MEAN	4.34	4.5	4.19	4.17
STD DEV	0.87	0.72	1	0.96
STD ERR	0.05	0.06	0.14	0.09
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---				

As inspection of Table 16 shows, support for the construction of wind farm projects in the Southern Tablelands is almost universal. Only 5% of those surveyed declared they were opposed to wind farm projects in the Southern Tablelands, 6% were ambivalent and 89% were in favour. The strength of support whilst uniformly high across our global warming analysis groups did vary in intensity. Amongst those saying they were 'strongly in favour', this response was significantly higher amongst those advocating an 'act now' response to global warming relative to those proposing a more gradual approach, reflecting the greater urgency felt by this group.

10.3 The positioning of wind energy

It has been said that in a marketing context the only difficulty in positioning wind energy is attempting to position it in the consumer's personal space. The proposition that wind energy is a clean energy source with low impact on the environment is clearly 'a winner' amongst those that feel global warming is a potential threat to the environment … until that is, it invades the personal space of the consumer. That's a sentiment that is tested progressively in the following series of statements, viz:

Table 17: Wind farm positioning statements

Q.12 How much do you agree with the following statements? *(read out first statement)* And is that (agree/disagree) strongly, or just (agree/disagree) or do you neither agree nor disagree with the statement? DO NOT ROTATE STATEMENT ORDER						
DTR Table: 25.0	Q12L STATEMENTS					
	Wind energy is a good alternative energy source	Australia should be investing more in wind energy	I would be happy to see more wind farms in Australia	Local Govern-ment should encourage wind farm develop-ment	Wind farm develop-ments contribute to the local economy	I would be happy to see a wind farm built on farmland near where I live
WEIGHTED BASE	300	300	300	300	300	300
	%	%	%	%	%	%
Q12 Agree / disagree						
Strongly Agree (5)	61%	63%	55%	53%	30%	45%
Agree (4)	35%	29%	36%	31%	35%	38%
Neither Agree nor Disagree (3)	1%	3%	2%	5%	20%	6%
Disagree (2)	2%	4%	6%	8%	12%	6%
Strongly Disagree (1)	1%	1%	1%	3%	2%	5%
TOTAL AGREE	96%	92%	91%	84%	65%	83%
TOTAL DISAGREE	3%	5%	7%	11%	15%	11%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	4.53	4.49	4.37	4.23	3.79	4.13
STD DEV	0.72	0.82	0.89	1.05	1.07	1.08
STD ERR	0.04	0.05	0.05	0.06	0.06	0.06

Few of the adults in this survey were ambivalent (<3%) or opposed to the views (<7%) that wind farms were a good alternative energy source, that Australia should be investing more in wind technology or that they would like to see more wind farms in Australia. Indeed these views were supported by 91% or more. At a local level however, there was less conviction that *"Local government should encourage wind farm development"*, albeit that 84% did agree with that statement, still remarkably high, even if falling marginally below the nationally oriented statements.

A claim that *"wind farm developments contribute to the local economy*" whilst agreed to by two in three attracted some scepticism: 15% disagreed, but a further 20% were ambivalent. This outcome would suggest that local promotion of the economic benefits flowing from wind farm development to the local area is warranted.

With respect to the statement *"I would be happy to see a wind farm built on farmland near where I live"* agreement is remarkably high (83%) and similar to that accorded to local government supporting wind farm development. 'Strong' agreement with the statement however is significantly lower than both the nationally orientated statements and the local government statement, reflecting less conviction in the agreement.

Analysing these outcomes by the three global warming analysis groups, it is evident that the greatest support for wind energy comes from those who have an 'act now' response to global warming.

Table 18: Wind farm positioning statements analysed by response to global warming

Q.12 How much do you agree with the following statements? *(read out first statement)* And is that (agree/disagree) strongly, or just (agree/disagree) or do you neither agree nor disagree with the statement? DO NOT ROTATE STATEMENT ORDER

DTR Table: 26- 31		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Wind energy is a good alternative energy source				
TOTAL AGREE	96%	96%	95%	96%
TOTAL DISAGREE	3%	3%	2%	4%
Australia should be investing more in wind energy				
TOTAL AGREE	92%	95%	87%	91%
TOTAL DISAGREE	5%	5%	7%	4%
I would be happy to see more wind farms in Australia				
TOTAL AGREE	91%	93%	88%	89%
TOTAL DISAGREE	7%	5%	10%	9%
Local Government should encourage wind farm development				
TOTAL AGREE	84%	89% +	79%	79%
TOTAL DISAGREE	11%	7% -	17%	15%
Wind farm developments contribute to the local economy				
TOTAL AGREE	65%	69%	62%	61%
TOTAL DISAGREE	15%	12%	23%	15%
I would be happy to see a wind farm built on farmland near where I live				
TOTAL AGREE	83%	87%	83%	77% -
TOTAL DISAGREE	11%	7%	15%	13%
TOTAL	100%	100%	100%	100%

Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---

10.4 Living with a wind farm within 10 kilometres of home

As a follow-up question to the statement *"I would be happy to see a wind farm built on the farmland near where I live",* we asked respondents whether it would make a difference to the way they had responded to that question, if

it was proposed to build a wind farm within 10 kilometres of where they live now. As Table 19 shows, seven in ten respondents claimed that having a wind farm within 10 kilometres of where they lived now would make no difference to their response to the statement.

Of the three in ten who claimed the proximity of the wind farm to their place of residence would make a difference to their response: two in ten claimed it would only serve for them to favour the statement more.

Table 19: Favour/oppose wind farms more or less if 10km from home

Q.13 And what if it was proposed to build a wind farm within 10 kilometres of where you live now, would that make any difference to the way you feel? Would it make you *(read out)*				
DTR Table: 32.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
I would be happy to see a wind farm built on farmland near where I live				
TOTAL AGREE	83%	87%	83%	77%
TOTAL DISAGREE	11%	7%	15%	13%
Q13 Difference if wind farm built within 10 kilometres of where live now				
Favour it more	22%	22%	22%	23%
Oppose it more	8%	6%	11%	8%
or, make no difference to your opinion	70%	71%	67%	69%
TOTAL	100%	100%	100%	100%

11. A focus on the local rural area

In this section of the questionnaire we placed a focus on the Crookwell wind farm which was commissioned in July, 1998 and is situated about 10 kilometres South East of Crookwell and located in the North East of the defined survey area – see map of survey area in Appendix I. As Crookwell is presently the only operational wind farm in the survey area, we sought to establish respondents' awareness, knowledge, familiarity and attitude to this wind farm.

As noted earlier in this report (see Tables 7 & 8) with the exception of Crookwell and Taralga, knowledge of other wind farm projects and their locations in the survey area at an unprompted level was somewhat vague, nonetheless there was certainly a consciousness of activity in the Southern Tablelands even if the details could not be recalled with clarity.

11.1 Awareness of the Crookwell wind farm

As inspection of Table 20 shows aided awareness of the Crookwell wind farm was almost universal with 94% of respondents aware of the wind farm. Amongst those who claimed the Crookwell wind farm was in their local area, aided awareness was as expected significantly greater (96%) than those for whom it was not (90%).

Table 20: Awareness of Crookwell wind farm

Q.14 There is presently a small wind farm located near Crookwell in the Southern Tablelands that was constructed in 1997 and has only 8 wind turbines … the wind farm is located to the South East of Crookwell which is about 30 kilometres north-west of Goulburn … a) Were you aware of the existence of this wind farm near Crookwell before today?			
DTR Table: 33.0		Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Crookwell is local	Crookwell NOT Local
WEIGHTED BASE	300	195	105
	%	%	%
Q14A Aware of existence of wind farm near Crookwell before today			
Yes	94%	96% +	90% -
No	6%	4% -	10% +
TOTAL	100%	100%	100%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---			

11.2 Personally seen the Crookwell wind farm?

We asked those respondents who were aware of the Crookwell wind farm whether they had personally seen it. As Table 21 shows 87% of those who were aware of the Crookwell wind farm had actually seen it … which, due to the high awareness of the wind farm, is 82% of all respondents.

Table 21: Personally seen the Crookwell wind farm

Q.14B IF YES IN Q.14 a): Have you personally, seen the wind farm near Crookwell?			
Filter: Q14A Aware of existence of wind farm near Crookwell before today			
DTR Table: 34.0		Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	281	187	94
	%	%	%
Q14B Seen wind farm near Crookwell			
Yes	87%	91% ++	78% --
No	13%	9% --	21% ++
Don't Know	0%	0%	1%
Q14B Seen wind farm near Crookwell – ALL RESPONDENTS			
WEIGHTED BASE	300 %	195 %	105 %
Yes	82%	88% ++	68% --
No/DK	18%	12% --	32% ++
TOTAL	100%	100%	100%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---			

As would be expected those who consider the Crookwell wind farm to be in their local rural area (see later) are significantly more likely to have seen the wind farm, relative to others resident in the survey area.

11.3 Frequency of seeing the Crookwell wind farm

During the course of a year seven in ten respondents in the survey area are in the vicinity and able to see the Crookwell wind farm. Amongst those who are aware of the existence of the Crookwell wind farm and have seen it, the proportion of those that are able to see it during the course of a year is significantly higher (88%)

Table 22: Frequency of seeing the Crookwell wind farm

Q.14C IF YES IN Q.14 b): And how often are you in the vicinity to see the wind farm near Crookwell …would it be (*read out if necessary*)			
Filter: Q14A Aware of existence of wind farm near Crookwell before today yes and q14b seen wind farm near Crookwell Yes			
DTR Table: 35.0		Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	245	171	74
	%	%	%
Q14C Often in vicinity to see the wind farm near Crookwell			
At least once a day (365)	5%	7%	0%
		+	-
Several times a week (156)	8%	10%	4%
At least once a week (52)	12%	14%	6%
At least once a week	*24%*	*32%*	*9%*
At least once a month (12)	18%	19%	14%
At least once a month	*42%*	*51%*	*23%*
Every two or three months (4)	9%	10%	8%
Three or four times a year (3)	13%	13%	11%
Once or twice a year (2)	24%	17%	39%
		---	+++
At least once a year	*88%*	*90%*	*82%*
less often	12%	10%	18%
TOTAL	100%	100%	100%
MEAN	44.6	56.49	14.21
STD DEV	88.77	100.3	32.86
STD ERR	6.08	8.14	4.21
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---			
ALL RESPONDENTS			
At least once a week	20%	28%	7%
At least once a month	34%	44%	17%
At least once every 6 months	52%	65%	30%
At least once a year	72%	80%	58%
Less often	10%	8%	12%
Never	18%	12%	30%
TOTAL	100%	101%	100%

As Table 22 shows the frequency of seeing the Crookwell wind farm is more frequently on view to those who consider the Crookwell wind farm to be located in their local rural area. Nonetheless 58% of all respondents who don't consider the Crookwell wind farm to be in their local area see the wind

farm at least annually and of those who are aware of it and have seen it previously, exposure rises to 82% each year.

Amongst those who have seen the Crookwell wind farm and consider it to be located in their local rural area, 51% see the wind farm at least once each month, compared to 23% of those who have seen the wind farm but do not consider the Crookwell wind farm to be in their local rural area.

11.4 Consider the Crookwell wind farm to be in your local rural area?

We asked all respondents in the survey area whether or not they considered the Crookwell wind farm to be in their local rural area. No assisting definition of what the 'local rural area' comprised was provided, the outcome depending purely on the respondents' perceptions. Two in three respondents considered the Crookwell wind farm was within their local rural area. There was no statistically significant difference across the global warming analysis groups.

Table 23: Is the Crookwell wind farm in your local area

Q.14D ASK EVERYONE: The Crookwell wind farm is located about 10km to the South East of Crookwell … is the Crookwell wind farm in what you would consider to be your local rural area?				
DTR Table: 36.0		Q2 Response to Global Warming		
	TOTAL	Act now despite costs	Do not incur costs	Gradual response
WEIGHTED BASE	300	150	52	98
	%	%	%	%
Q14D Crookwell wind farm considered to be in local rural area				
Yes	65%	62%	67%	68%
No	34%	35%	33%	32%
Don't Know	1%	3% +	0%	0%
TOTAL	100%	100%	100%	100%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---				

11.5 Distance respondents reside from the Crookwell wind farm

Just on seven in ten respondents indicated they lived more than 25 kilometres from the Crookwell wind farm. Indeed, even amongst those who considered the Crookwell wind farm to be in their local rural area, 57% stated they lived more than 25 kilometres from the wind farm – only 14% said they lived within 10 kilometres.

Amongst the respondents who did not consider the Crookwell wind farm to be in their local rural area (34%) some 90% stated they lived more than 25 kilometres from the wind farm.

Table 24: Distance respondents reside from Crookwell wind farm

Q.14E About how far is the Crookwell wind farm from where you live? If necessary: Would it be …			
DTR Table: 37.0		Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	195	105
	%	%	%
Q14E Kilometres Crookwell wind farm from where live			
less than 1 kilometre (.5)	1%	1%	0%
1 to 3 kilometres (2.5)	1%	1%	0%
4 to 10 kilometres (7)	8%	12%	1%
		+++	---
11 to 25 kilometres (18)	20%	27%	8%
		+++	---
more than 25 kilometres (26)	68%	57%	90%
		---	+++
Don't Know	2%	2%	2%
TOTAL	100%	100%	100%
MEAN	22.46	20.94	25.25
STD DEV	6.23	7.04	2.63
STD ERR	0.36	0.51	0.26
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---			

11.6 Favour or oppose the Crookwell wind farm?

Few of the respondents in this survey (3%) were opposed to the Crookwell wind farm. Indeed it can be said there is no significant opposition to the Crookwell wind farm. Its greatest threat is the ambivalence of respondents, that is, those who are sitting on the fence.

Analysis of the outcome by the global warming response groups shows that those who favour a 'gradual' approach to global warming are less committed in their support for Crookwell and exhibit a statistically significant higher level of ambivalence toward the wind farm relative to those who favour an 'act now' response. The response of the 'gradual' group is similar to those who don't regard the Crookwell wind farm as falling within their local rural area.

Comparing the responses of those who regard the Crookwell wind farm as falling within their local rural area versus those who don't, we find a statistically significant difference between the two. Of those who regard Crookwell wind farm as local, 89% favour the farm, whereas for those who do not regard it as local, only 78% find favour with the farm – 18% are ambivalent. It would appear that those who live in the vicinity of a wind farm are more likely to favour it than those who don't. Proximity appears to mitigate concerns.

Notwithstanding these comments, community support for the Crookwell wind farm can only be summarised as outstanding with 85% of respondents saying they are in favour of the wind farm.

Table 25: General opinion of the Crookwell wind farm

Q.14F And what is your general opinion of the Crookwell wind farm, would you say you are … (*read out*)						
DTR Table: 38.0		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q14F General opinion of the Crookwell wind farm						
Strongly in favour (5)	50%	59% ++	40%	42% -	53%	45%
Generally in favour (4)	35%	29% -	45%	38%	36%	33%
or... do you not mind one way or the other (3)	12%	10%	10%	17% +	9% -	18% +
Generally opposed (2)	2%	1%	6%	3%	2%	3%
Strongly opposed (1)	0%	0%	0%	0%	0%	1%
TOTAL IN FAVOUR	85%	89%	85%	80%	89% +	78% -
TOTAL OPPOSED	3%	2%	6%	3%	2%	4%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	4.33	4.46	4.19	4.19	4.4	4.19
STD DEV	0.8	0.76	0.83	0.82	0.74	0.89
STD ERR	0.05	0.06	0.12	0.08	0.05	0.09
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---						

12. How close, is "close to home"?

As we have just seen, if you live in the vicinity of a wind farm you are more likely to favour it, or at least more likely to have an opinion of it, than you are if the wind farm is not located in your vicinity.

Critics of wind farms have, amongst other things, highlighted the lack of visual appeal of wind farms and noise as issues for wind farms. As can be seen in Table 13 above, 24% mentioned 'noise' as a disadvantage of wind farms and a further 18% mentioned the lack of visual appeal as a disadvantage. However, at least two in three who had seen a wind farm felt they were visually appealing (see Table 12), nine in ten respondents accepted that changes to landscape were necessary if we are to adopt wind power (see Table 15) and further just on nine in ten were in favour of wind farm projects in the Southern Tablelands (see Table 16).

In this section, we have sought to address the issue of noise impact of wind turbines and the proximity of wind turbines to respondents' homes. To do this we elected to use the distance of 800 metres, which on advice, we understand is the typical distance, based on scientific testing, at which the noise from a wind turbine at a typical site is no longer significant, even in extreme wind conditions. We recognise that in practice this distance may vary marginally depending on the specific characteristics of a specific site.

Accordingly, in the next section of the questionnaire we advised respondents that scientific testing had established that people need to be less than 800 metres from the wind turbines to hear any significant noise, even in extreme wind conditions. With

this in mind, we asked respondents to consider how strongly they either favoured or opposed having a wind farm located 1 kilometre, 3 kilometres, 10 kilometres and 25 kilometres of their home.

We would note in passing, that 83% of respondents agree they would be happy to have a wind farm located in the farm land near where they live and if that was within 10 kilometres of their home, it would on balance make no difference to their opinion (see Table 19).

12.1 A wind farm one kilometre from home?

When asked whether they would favour or oppose a wind farm located one kilometre from their home, 71% of respondents in this community survey said they would be in favour of the wind farm. 19% were opposed and 10% were ambivalent.

Table 26: Favour or oppose a wind farm one kilometre from home

Q.15 Scientific tests conducted at wind farms have shown that people need to be less than approximately 800 metres from the wind turbines for them to hear any significant noise, even in extreme wind conditions. Bearing this in mind … a) Would you favour or oppose a wind farm if it was located ONE KILOMETRE from where you live now? Would that be *(read out)*			
DTR Table: 39.0		Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	195	105
	%	%	%
Q15A Favour / oppose - wind farm if it was located one kilometre from home			
Strongly in favour (5)	39%	46% ++	27% --
Generally in favour (4)	32%	29%	36%
or... do you not mind one way or the other? (3)	10%	7%	14%
Generally opposed (2)	9%	8%	12%
Strongly opposed (1)	10%	9%	11%
TOTAL IN FAVOUR	71%	75% +	64% -
TOTAL OPPOSED	19%	17%	23%
TOTAL	100%	100%	100%
MEAN	3.81	3.95	3.57
STD DEV	1.32	1.31	1.31
STD ERR	0.08	0.09	0.13
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---			

Whilst there was no significant difference between the responses of the global warming analysis groups, there was a statistically significant difference in the response provided by those who regarded the Crookwell wind farm as falling within their local rural area (75%) and those who did not (64%). This outcome is due in part the higher proportion of those in the 'non-local' group who were ambivalent about the proposition.

12.2 A wind farm three kilometres from home?

When asked to consider a wind farm three kilometres from home, there was a significant increase in the proportion of respondents who were in favour of the wind farm. Those in favour increased from 71% in favour of a wind farm one kilometre from home to 79% for a wind farm three kilometres from home.

Table 27: Favour or oppose a wind farm three kilometres from home

Q.15B Would you favour or oppose a wind farm if it was located THREE KILOMETRES from where you live now? Would that be *(read out)*			
DTR Table: 40.0		Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	195	105
	%	%	%
Q15B Favour / oppose - wind farm if it was located three kilometres from home			
Strongly in favour (5)	46%	48%	43%
Generally in favour (4)	32%	32%	32%
or... do you not mind one way or the other? (3)	9%	8%	10%
Generally opposed (2)	7%	6%	9%
Strongly opposed (1)	6%	6%	6%
TOTAL IN FAVOUR	79%	80%	75%
TOTAL OPPOSED	13%	12%	15%
TOTAL	100%	100%	100%
MEAN	4.06	4.11	3.97
STD DEV	1.16	1.14	1.2
STD ERR	0.07	0.08	0.12

At three kilometres from home there is no statistically significant difference in the outcome for any of the analysis groups, including those who live / don't live within the local rural area of the Crookwell wind farm.

12.3 A wind farm ten kilometres from home?

At ten kilometres from home the proportion in favour of the wind farm rises again. At ten kilometres, 83% support the wind farm, the same outcome as reported earlier (see Table 19).

As can be seen in Table 28 below, support for the wind farm has strengthened at the expense of those opposed or ambivalent to the earlier propositions. Generally, support is more committed amongst those for whom the Crookwell wind farm is within the respondents' local rural area. This outcome tends to reinforce the earlier proposition that the more familiar respondents become with wind farms in their usual environment, the less likely they are to be opposed to them.

Table 28: Favour or oppose a wind farm ten kilometres from home

Q.15C Would you favour or oppose a wind farm if it was located TEN KILOMETRES from where you live now? Would that be *(read out)*			
DTR Table: 41.0		Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	195	105
	%	%	%
Q15C Favour / oppose - wind farm if it was located ten kilometres from home			
Strongly in favour (5)	53%	54%	50%
Generally in favour (4)	31%	31%	30%
or... do you not mind one way or the other? (3)	8%	8%	9%
Generally opposed (2)	4%	2%	7%
		-	+
Strongly opposed (1)	4%	4%	4%
TOTAL IN FAVOUR	83%	85%	80%
TOTAL OPPOSED	8%	7%	11%
TOTAL	100%	100%	100%
MEAN	4.24	4.29	4.14
STD DEV	1.04	1.01	1.1
STD ERR	0.06	0.07	0.11
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---			

12.4 A wind farm twenty five kilometres from home?

At twenty five kilometres from home, 87% of the community sample in the survey area was in favour of the proposition.

Table 29: Favour or oppose a wind farm twenty five kilometres from home

Q.15D Would you favour or oppose a wind farm if it was located TWENTY FIVE KILOMETRES from where you now live? Would that be *(read out)*			
DTR Table: 42.0		Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	195	105
	%	%	%
Q15D Favour / oppose - wind farm if it was located twenty five kilometres from home			
Strongly in favour (5)	57%	59%	54%
Generally in favour (4)	30%	28%	33%
or... do you not mind one way or the other? (3)	9%	9%	9%
Generally opposed (2)	2%	2%	4%
Strongly opposed (1)	2%	3%	1%
TOTAL IN FAVOUR	87%	87%	87%
TOTAL OPPOSED	5%	4%	5%
TOTAL	100%	100%	100%
MEAN	4.37	4.38	4.35
STD DEV	0.9	0.92	0.85
STD ERR	0.05	0.07	0.08

12.5 Acceptance of wind farms by distance from home – a summary

As we have seen in the preceding sections those in favour of a wind farm close to where they live, rises from a low of 71% when the wind farm is located one kilometre from home to a high of 87% when it is located twenty five kilometres away. Table 30 summarises the proportions in favour and opposed for each of the four distances tested.

Table 30: Acceptance of wind farms by distance from home

Q. 15 Scientific tests conducted at wind farms have shown that people need to be less than approximately 800 metres from the wind turbines for them to hear any significant noise, even in extreme wind conditions. Bearing this in mind … Would you favour or oppose a …			
DTR Table: 39.0 to 42.0		Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	195	105
	%	%	%
Q15A Wind farm located one kilometre from home			
TOTAL IN FAVOUR	71%	75%	64%
		+	-
TOTAL OPPOSED	19%	17%	23%
Q15B Wind farm located three kilometres from home			
TOTAL IN FAVOUR	79%	80%	75%
TOTAL OPPOSED	13%	12%	15%
Q15C Wind farm located ten kilometres from home			
TOTAL IN FAVOUR	83%	85%	80%
TOTAL OPPOSED	8%	7%	11%
Q15D Wind farm located twenty five kilometres from home			
TOTAL IN FAVOUR	87%	87%	87%
TOTAL OPPOSED	5%	4%	5%
TOTAL	100%	100%	100%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---			

When attempting to assess the outcomes of this questioning procedure it should not be forgotten that we have presaged the questions by introducing the concept of wind noise from the wind turbines that comprise wind farms. It will be recalled we advised respondents that *"Scientific tests conducted at wind farms have shown that people need to be less than approximately 800 metres from the wind turbines for them to hear any significant noise, even in extreme wind conditions"*. At the very least, the outcomes from these questions suggest that at least 71% of respondents are prepared to accept a wind farm one kilometre from home, that 10% were ambivalent, not caring one way or the other and that only 19% expressed opposition.

We would note the percentage of respondents opposed to wind farms, drops significantly for wind farms ten kilometres from home (8%) and declines further to 5% at twenty five kilometres.

13. The issue of wind farm size

Whilst we have explored knowledge, understanding and attitudes to various dimensions of wind farms, so far we have not addressed the issue of the size of wind farms. To this point in the questionnaire we have narrowed the focus of the respondents to Crookwell wind farm and use this inter alia as a reference point. The Crookwell wind farm, which we have established is well known to respondents in the survey area, has however only eight wind turbines. In this section we sought to establish the extent to which respondents either favour or oppose wind farms of varying sizes in their local rural area.

13.1 Aided awareness of approved wind farm projects in the survey area

As we have already noted, respondents in the survey area were aware of wind farm projects in the Southern Tablelands, but with the exception of Crookwell and Taralga were somewhat vague as to their location. We addressed this by reading a short list of approved but yet to be constructed wind farm projects in the Southern Tablelands, specifying their locations and the number of wind turbines that would comprise each wind farm.

The purpose of the question was to not only establish awareness of each specific project, but to provide information to respondents concerning the actual size of the wind farm via the administration of the question.

As Table 31 shows at least one in two respondents are aware of each of the wind farm projects nominated. Only 7% were unable to nominate a project. The leading projects were, viz:

- Crookwell 2, mentioned by 71%
- Taralga, mentioned by 63%, and
- Gunning, mentioned by 59%

The Conroy's Gap and Cullerin range wind farms followed closely behind in terms of aided awareness.

Not unexpectedly, aided awareness of Crookwell 2 (76%) and Taralga (69%) was significantly greater amongst those respondents who described the Crookwell wind farm as falling within their local rural area, albeit that their interest in such projects appears to have been stimulated by the existence of the Crookwell wind farm. Only the Conroy's Gap wind farm near Yass, the most distant from Crookwell, was better known by those who did not include the Crookwell wind farm in their local rural area.

We would note in passing that analysis of the aided awareness of these approved, but yet to be constructed wind farms, by the global warming groups appears to produce statistically significant aided awareness profiles across these three groups. Given the stated responses of these groups differ; the reasons for the differential responses at Conroy's Gap, Cullerin Range and Gunning perhaps relate to the differences in the approval process and/or the site histories which is beyond the scope of this report.

Table 31: Aided awareness of approved wind farm projects

Q.16 At present a number of wind farms have been approved, but are yet to be built in the Southern Tablelands … which of the following wind farm developments in the Southern Tablelands were you aware of before today …						
DTR Table: 43.0		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q16 Aware a number of wind farms have been approved in the southern tablelands						
the Conroy's Gap wind farm near Yass with 15 wind turbines	51%	50%	54%	52%	48%	58%
the Cullerin Range wind farm with 15 wind turbines	54%	44% ---	70% ++	61%	56%	50%
the Gunning wind farm near Gunning with 32 wind turbines	59%	52% -	75% ++	60%	62%	53%
the Crookwell 2 wind farm near Crookwell with 46 wind turbines	71%	71%	73%	69%	76% ++	60% --
the Taralga wind farm near Taralga with 69 wind turbines	63%	57% -	73%	67%	69% ++	53% --
None of these	7%	9%	2%	7%	6%	9%
TOTAL	305%	283%	346%	317%	317%	283%
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---						

13.2 Acceptance of small wind farms

We explained to respondents that wind farms are usually sited on ridges and hills on private land in rural areas where wind flow is the greatest; that wind farms are built in varying sizes depending on local conditions and may contain as few as 8 wind turbines, but typically 15 to 80 wind turbines spaced about 400 to 500 metres apart. In this context we asked respondents whether they would favour or oppose the development of a small wind farm of up to 15 wind turbines in their local rural area.

Almost all respondents (88%) were in favour of such a project in their local rural area, only 7% were opposed.

Analysis by the global warming groups produced significantly different outcomes between the three groups. Those with an 'act now' focus were significantly more disposed to such a project (92% favoured it), whereas those who adopt a 'gradual' response were less inclined to favour the project (81%), albeit the level of actual support was very high anyway.

There were no significant differences between those who classified the Crookwell wind farm as falling within/outside their local rural area.

Table 32: Favour or oppose a small wind farm in the local rural area

Q.17 Wind farms are usually sited on ridges and hills on private land in rural areas where wind flow is the greatest … wind farms are built in varying sizes depending on local conditions and may contain as few as 8 wind turbines, but typically 15 to 80 wind turbines spaced about 400 to 500 metres apart …
a) Thinking about the local rural area in your vicinity … would you favour or oppose the development of a small wind farm of up to 15 wind turbines in your local rural area? Would that be (*read out*)

DTR Table: 44.0		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q17A Favour / oppose small wind farm of up to 15 wind turbines in local rural area						
Strongly in favour (5)	56%	61%	53%	49%	59%	50%
Generally in favour (4)	32%	31%	36%	33%	31%	35%
or... do you not mind one way or the other (3)	5%	3%	2%	9%	4%	6%
Generally opposed (2)	4%	2%	7%	6% +	3%	6%
Strongly opposed (1)	3%	3%	2%	4%	3%	3%
TOTAL IN FAVOUR	88%	92%	89%	81%	90%	85%
TOTAL OPPOSED	7%	5% +	9%	10% -	6%	9%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	4.34	4.46	4.31	4.16	4.4	4.22
STD DEV	0.97	0.88	0.97	1.08	0.94	1.02
STD ERR	0.06	0.07	0.14	0.11	0.07	0.1

Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---

13.3 Acceptance of typical wind farms

Having established whether respondents either favour or oppose 'small' wind farms, we asked whether they would favour or oppose a 'typical' wind farm with 15 to 80 wind turbines in their local rural area. Those in favour of a 'typical' wind farm with 15 to 80 turbines was significantly lower than for 'small' wind farms with those favouring such a wind farm falling from 88% for a 'small' wind farm to 76%. Moreover, those opposed to a 'small' wind farm (7%) increased significantly to 19% expressing their opposition to a 'typical' wind farm. Nonetheless support for a typical wind farm from three in every four adults in this community survey is very strong support.

Support was highest from those with an 'act now' focus in response to global warming at 81%, but again significantly lower amongst those advocating a 'gradual' approach to global warming at 68%.

Support for a typical wind farm was lower amongst those without a wind farm in their local rural area, but not significantly so – the difference was more in the intensity of the support provided as is shown in Table 33.

Table 33: Favour or oppose a typical wind farm in the local rural area

Q.17B Would you favour or oppose the development of a typical wind farm with 15 to 80 wind turbines in your local rural area? Would that be (*read out*)						
DTR Table: 45.0		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q17B Favour / oppose typical wind farm with 15-80 wind turbines in local rural area						
Strongly in favour (5)	37%	44% +	37%	28% -	40%	32%
Generally in favour (4)	39%	37%	40%	40%	38%	40%
or... do you not mind one way or the other (3)	5%	5%	1%	6%	3% --	9% ++
Generally opposed (2)	10%	8%	12%	14%	11%	9%
Strongly opposed (1)	9%	6%	11%	12%	8%	10%
TOTAL IN FAVOUR	76%	81% +	76%	68% -	78%	72%
TOTAL OPPOSED	19%	14% -	22%	26% +	19%	18%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	3.86	4.06	3.8	3.58	3.91	3.76
STD DEV	1.26	1.15	1.34	1.35	1.26	1.26
STD ERR	0.07	0.1	0.19	0.13	0.09	0.12
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---						

13.4 Acceptance of large wind farms

Finally, we asked respondents whether they favour or oppose the development of a large wind farm with greater than 80 and up to 120 wind turbines in their local area. The pattern of support declining with the increase in size of the wind farm continued. Nonetheless, 61% of respondents in the survey area indicated they favoured the development of a large wind farm in their local area. Opposition continued to grow commensurate with the size of the wind farm. Those opposed to the development of a wind farm in their local rural area grew from 7% for a small wind farm, to 19% for a 'typical' wind farm and then to 32% for a large wind farm. Nonetheless, at least six in ten respondents supported a wind farm of greater than 80 and up to 120 wind turbines in their local rural area.

Those with an 'act now' response to global warming were the most positive supporters (68%), but those advocating a 'gradual' response were significantly less supportive (53%).

Those whose local rural area encompassed the existing Crookwell wind farm continued to offer a greater intensity of support relative to their counterparts who lived further away.

Table 34: Favour or oppose a large wind farm in the local rural area

Q.17 C And would you favour or oppose the development of a large wind farm with greater than 80 and up to 120 wind turbines in your local rural area? Would that be (*read out*)						
DTR Table: 46.0		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q17C Favour / oppose - large wind farm with 80 - 120 wind turbines in local rural area						
Strongly in favour (5)	27%	32%	27%	21%	31% +	20% -
Generally in favour (4)	34%	36%	30%	32%	32%	37%
or... do you not mind one way or the other (3)	7%	8%	2%	9%	5%	11%
Generally opposed (2)	17%	14%	22%	19%	18%	16%
Strongly opposed (1)	15%	10% -	19%	20%	13%	17%
TOTAL IN FAVOUR	61%	68% +	58%	53% -	64%	57%
TOTAL OPPOSED	32%	24% --	41%	38%	31%	33%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	3.42	3.66	3.26	3.15	3.51	3.27
STD DEV	1.42	1.33	1.53	1.45	1.43	1.4
STD ERR	0.08	0.11	0.21	0.14	0.1	0.14
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---						

13.5 Acceptance of wind farms by size – a summary

In Table 35 below we have provided a summary of the response of respondents to the development of wind farms of varying size in their local rural areas. As we have noted in the preceding sections, support for wind farms declines with increasing size when it is proposed they are to be developed in the respondents' local rural areas, viz:

- 88% favour a small wind farm of up to 15 wind turbines
- 76% favour a typical wind farm with 15 to 80 wind turbines; and
- 61% favour a large wind farm with greater than 80 and up to 120 wind turbines.

Those advocating an 'act now' response to global warming demonstrate a statistically significant higher level of support for each option. Conversely, those who advocate a 'gradual' response to global warming demonstrate a significantly lower level of support for each option. Nonetheless, a majority of this group still support the development of a large wind farm.

Table 35: Favour or oppose wind farms of varying size in the local area

Q.17A Thinking about the local rural area in your vicinity … would you favour or oppose the development of a small wind farm of up to 15 wind turbines in your local rural area? Would that be (*read out*)
Q.17B Would you favour or oppose the development of a typical wind farm with 15 to 80 wind turbines in your local rural area? Would that be (*read out*)
Q.17 C And would you favour or oppose the development of a large wind farm with greater than 80 and up to 120 wind turbines in your local rural area? Would that be (*read out*)

DTR Tables: 44.0 to 46.0		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q17A Favour / oppose small wind farm of up to 15 wind turbines in local rural area						
TOTAL IN FAVOUR	88%	92% +	89%	81% -	90%	85%
TOTAL OPPOSED	7%	5%	9%	10%	6%	9%
Q17B Favour / oppose typical wind farm with 15-80 wind turbines in local rural area						
TOTAL IN FAVOUR	76%	81% +	76%	68% -	78%	72%
TOTAL OPPOSED	19%	14% -	22%	26% +	19%	18%
Q17C Favour / oppose - large wind farm with 80 - 120 wind turbines in local rural area						
TOTAL IN FAVOUR	61%	68% +	58%	53% -	64%	57%
TOTAL OPPOSED	32%	24% --	41%	38%	31%	33%
TOTAL	100%	100%	100%	100%	100%	100%

Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---

14. Cumulative impact of successive wind farm developments

In this final section of the questionnaire we asked respondents to consider a scenario where a typical wind farm of 15 to 80 wind turbines had been constructed on the hills or ridges of private farmland in their local rural area … and, it was proposed that a second wind farm of similar size was also to be located in their local rural area.

14.1 The preferred site for a second wind farm in the local rural area

Given the existence of one typical wind farm in the local rural area, some two in three respondents preferred the second typical wind farm to be located either adjacent or nearby the first wind farm. The balance, roughly one in three advocated somewhere further away and out of sight of the first wind farm, which on average equated to approximately 20 kilometres.

There were no statistically significant differences between the analysis groups.

Table 36: Preferred site for a second wind farm in the local rural area

Q.18 If for the moment you could imagine a typical wind farm with 15 to 80 wind turbines was sited on the hills or ridges of private farmland in your local rural area … and it was proposed to site another wind farm of similar size in your local rural area …
a) Would you prefer that it was (*read out)*
b) IF "BE LOCATED ELSEWHERE": How far away from the existing site should it be located? If necessary: How many kilometres away?

DTR Table: 47.0 & 48.0		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q18A Preferred site of 2nd wind farm of 15 - 80 wind turbines in local rural area						
sited adjacent to the existing wind farm,	42%	44%	41%	40%	43%	41%
not adjacent, but nearby the existing wind farm, or	21%	20%	29%	16%	18%	26%
be located elsewhere in your local rural area further away and out of sight from the existing wind farm	37%	36%	30%	44%	39%	34%
TOTAL	100%	100%	100%	100%	100%	100%
WEIGHTED BASE	112	54	15	43	77	36
	%	%	%	%	%	%
Q18BCD Kilometres from the existing site should be located						
Up to 5 km	19%	21%	24%	16%	18%	22%
Up to 10 km	21%	16%	16%	27%	20%	21%
Up to 20 km	19%	16%	14%	22%	22%	10%
Up to 50 km	15%	12%	21%	17%	12%	21%
More than 50 km	4%	3%	0%	6%	5%	0%
DON'T KNOW	22%	31%	25%	12%	23%	24%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	19.34	17.87	16.99	21.54	19.98	17.89
STD DEV	20.53	20.07	14.59	22.68	22.28	16.11
STD ERR	2.11	3.13	4.22	3.51	2.76	2.96

Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---

14.2 Acceptance of two 'typical' wind farms in local rural area

We had asked respondents earlier (see Table 33) whether they favour or oppose a 'typical' wind farm of 15 to 80 turbines in their local rural area and 76% favoured the proposition. 19% were opposed.

As can be seen from Table 37 below these outcomes basically remain unchanged when respondents are asked to consider whether they favour or oppose two 'typical' wind farms in their local rural area. 75% were in favour and 17% were opposed. Those in the 'act now' global warming response group and those for whom the Crookwell wind farm was in their local rural area were the most committed.

Table 37: Favour or oppose two typical wind farms in local rural area

Q.18 c) Would you favour or oppose the location of two typical wind farms each one of 15 to 80 turbines your local rural area? Would that be (*read out*)						
DTR Table: 49.0		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q18C Favour / oppose two typical wind farms each one 15-80 turbines in local rural area						
Strongly in favour (5)	34%	41% ++	30%	24% -	36%	30%
Generally in favour (4)	42%	38%	40%	48%	43%	40%
or... do you not mind one way or the other (3)	8%	7%	8%	8%	5% --	13% ++
Generally opposed (2)	10%	7%	14%	12%	10%	11%
Strongly opposed (1)	7%	6%	8%	8%	7%	6%
TOTAL IN FAVOUR	75%	79%	71%	72%	79%	70%
TOTAL OPPOSED	17%	13%	21%	20%	17%	17%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	3.85	4.02	3.72	3.68	3.9	3.77
STD DEV	1.19	1.14	1.25	1.2	1.2	1.17
STD ERR	0.07	0.09	0.18	0.12	0.09	0.11
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---						

14.3 Acceptance of three 'typical' wind farms in local rural area

When respondents were asked whether they would favour or oppose a third 'typical' wind farm, not unexpectedly the proportion in favour declined significantly from the 75% who favoured two wind farms to 64% who favoured three 'typical' wind farms. Those opposed rose significantly from the 17% who were opposed to two wind farms to 27% who were opposed to three 'typical' wind farms.

Of interest here is the significantly different response emanating from those who already have a wind farm in their local area (70%) from those who don't (53%) as Table 38 below shows. This outcome highlights that experience of living with wind farms in the local rural area would appear to impact on respondents positive predispositions toward wind farms in their local rural area.

Amongst the global warming response groups we find a significant absolute difference between the 'act now' group and the other two groups and in particular a significant increase in the proportion of the 'gradual' response group who now oppose the introduction of a third wind farm into their local rural area.

Table 38: Favour or oppose three typical wind farms in local rural area

Q.18 d) Would you favour or oppose the location of three typical wind farms each one of 15 to 80 turbines in your local rural area? Would that be (*read out*)						
DTR Table: 50.0		Q2 Response to Global Warming			Q14D Is Crookwell in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q18D Favour / oppose three typical wind farms 15-80 turbines in local rural area						
Strongly in favour (5)	30%	34%	31%	21% -	33%	23%
Generally in favour (4)	35%	34%	29%	39%	37%	30%
or... do you not mind one way or the other (3)	9%	11%	11%	6%	6% --	16% ++
Generally opposed (2)	14%	11%	13%	21% +	11% -	20% +
Strongly opposed (1)	12%	11%	16%	13%	13%	11%
TOTAL IN FAVOUR	64%	68%	60%	61%	70% ++	53% --
TOTAL OPPOSED	27%	21% -	29%	34%	24%	31%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	3.55	3.7	3.46	3.36	3.66	3.34
STD DEV	1.37	1.33	1.47	1.36	1.38	1.33
STD ERR	0.08	0.11	0.21	0.13	0.1	0.13
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---						

14.4 Acceptance of four 'typical' wind farms in local rural Area

When asked whether they would favour or oppose a fourth 'typical' wind farm of 15 to 80 turbines in their local area, those respondents in favour declined from 64% in favour of three, to 56% in favour of four wind farms. Opposition increased from 27% of respondents who were opposed to three wind farms, to 34% who were opposed to four wind farms as Table 39 below shows.

Once again we see a significant difference in the outcome when comparing those for whom Crookwell is in their local rural area (61% approve) versus those for whom the Crookwell wind farm is not within their local rural area (48% approve). Further examination of those for whom Crookwell is not 'local', shows that the proportion of this group who oppose a fourth wind farm is similar to the overall sample and that a significant proportion of this group remain uncommitted, either way. The same pattern is evident in each of the earlier questions.

Table 39: Favour or oppose four typical wind farms in local rural area

Q.18 e) Would you favour or oppose the location of four typical wind farms each one of 15 to 80 turbines in your local rural area? Would that be (*read out*)						
DTR Table: 51.0		Q2 Response to Global Warming			Q14D Is Crookwell in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell local - Yes	Crookwell Local - No/DK
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q18E Favour/oppose four typical wind farms 15-80 turbines in local rural area						
Strongly in favour (5)	27%	31%	27%	20%	30%	21%
Generally in favour (4)	30%	31%	24%	31%	31%	27%
or... do you not mind one way or the other (3)	10%	10%	12%	10%	7% --	17% ++
Generally opposed (2)	18%	16%	15%	23%	18%	19%
Strongly opposed (1)	15%	13%	22%	16%	15%	16%
TOTAL IN FAVOUR	56%	62%	51%	51%	61% +	48% -
TOTAL OPPOSED	34%	29%	37%	39%	33%	35%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	3.34	3.51	3.19	3.16	3.43	3.18
STD DEV	1.43	1.4	1.54	1.4	1.45	1.39
STD ERR	0.08	0.12	0.22	0.14	0.1	0.14
Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---						

14.5 Acceptance of multiple wind farms in local rural area – summary

In Table 40 below, we have summarised the outcomes to each of the three questions in this section and also included the earlier question relating to those who favour / oppose one 'typical' wind farm in their local rural area.

These outcomes would suggest that nearly three in four respondents would support two 'typical' wind farms each one of 15 to 80 turbines in their local rural area. The addition of a third wind farm would be supported by approximately two in three.

Support reaches its lowest point with the addition of a fourth wind farm. At this number those in favour of a fourth wind farm in the local rural area declines to 56%, still a majority. The outcomes to these questions also suggest that as respondents gain experience living with wind farms in their local rural environment they are likely to become more accepting of them. Hence whilst support for a fourth wind farm falls below a majority for those presently living without a wind farm in their local area (48%), those presently living with a wind farm in their local area continue to provide substantial support (61%) for a fourth wind farm.

Clearly there is a point at which the addition of another 'typical' wind farm will produce a resounding 'NO' from the community. That point would appear to be beyond four 'typical' sites.

Table 40: Favour or oppose multiple wind farms – summary

Q.17B Would you favour or oppose the development of a typical wind farm with 15 to 80 wind turbines in your local rural area? Would that be (*read out*)
Q.18 c) Would you favour or oppose the location of two typical wind farms each one of 15 to 80 turbines your local rural area? Would that be (*read out*)
Q.18 d) Would you favour or oppose the location of three typical wind farms each one of 15 to 80 turbines in your local rural area? Would that be (*read out*)
Q.18 e) Would you favour or oppose the location of four typical wind farms each one of 15 to 80 turbines in your local rural area? Would that be (*read out*)

DTR Table: 45, 49, 50 & 51		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q17B Favour / oppose ONE typical wind farm with 15-80 wind turbines in local rural area						
TOTAL IN FAVOUR	76%	81% +	76%	68% -	78%	72%
TOTAL OPPOSED	19%	14% -	22%	26% +	19%	18%
Q18C Favour / oppose TWO typical wind farms each one 15-80 turbines in local rural area						
TOTAL IN FAVOUR	75%	79%	71%	72%	79%	70%
TOTAL OPPOSED	17%	13%	21%	20%	17%	17%
Q18D Favour / oppose THREE typical wind farms 15-80 turbines in local rural area						
TOTAL IN FAVOUR	64%	68%	60%	61%	70% ++	53% --
TOTAL OPPOSED	27%	21% -	29%	34%	24%	31%
Q18E Favour/oppose FOUR typical wind farms 15-80 turbines in local rural area						
TOTAL IN FAVOUR	56%	62%	51%	51%	61% +	48% -
TOTAL OPPOSED	34%	29%	37%	39%	33%	35%
TOTAL	100%	100%	100%	100%	100%	100%

Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---

14.6 Placement of multiple wind farms in the local rural area

The placement of a number of wind farms in the respondents' local rural area is also a potential issue, given there is some concern for landscape values. We asked respondents whether they would prefer wind farms to be concentrated in a few clusters, close together or spread out at reasonable intervals along the main road or highway, if a number of wind farms were built on the ridges and hills that they can see when travelling along the main road or highway in their local rural area.

The outcomes suggest respondents are evenly divided between a few clusters, close together, or spread out at reasonable intervals along the highway. For those who preferred the wind farms to be 'spread out', a reasonable interval would appear to be 8 to 10 kilometres.

Table 41: Placement of multiple wind farms in the local rural area

Q.19 Finally, if a number of typical wind farms were built on the ridges and hills that you can see when traveling along the main road or highway in your local rural area … a) Would you prefer the wind farms (*read out*) b) IF "SPREAD OUT" IN Q.19 a): How far apart should those intervals be? RECORD IN KILOMETRES						
DTR Table: 52.0 & 53.0		Q2 Response to Global Warming			Q14D Is Crookwell wind farm in your local rural area	
	TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell IS local	Crookwell NOT local
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Q19A Preference of wind farms seen on ridges / hills when driving						
to be concentrated in a few clusters close together, or	52%	52%	59%	48%	50%	55%
spread out at reasonable intervals along the main road or highway	48%	48%	41%	52%	50%	45%
TOTAL	100%	100%	100%	100%	100%	100%
Filter: Q19A Preference of wind farms seen on ridges / hills when driving spread out at reasonable intervals along the main road or highway						
WEIGHTED BASE	145	72	21	52	98	47
	%	%	%	%	%	%
Q19BCD Kilometres apart should intervals be						
1	20%	19%	28%	18%	21%	16%
2	5%	7%	3%	4%	3%	10%
3	3%	4%	4%	1%	2%	6%
4	1%	1%	0%	2%	0%	4%
5	13%	15%	11%	12%	13%	13%
7	1%	1%	0%	1%	2%	0%
8	0%	0%	3%	0%	1%	0%
10	12%	9%	10%	17%	10%	15%
15	4%	5%	4%	1%	4%	3%
20	7%	3%	13%	10%	7%	6%
25	1%	1%	3%	0%	2%	0%
30	3%	3%	8%	1%	5%	0%
More than 50 Km	1%	0%	0%	2%	1%	0%
DON'T KNOW	28%	31%	12%	30%	30%	25%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	8.46	7.02	11.61	9.50	9.85	6.43

15. Profile of the survey area and principal analysis groups

As noted in Appendix I to this report, the survey data has been post-stratified by age and gender of respondent, in order to ensure that sample variations arising from these variables have been controlled so that the age / gender distribution accords with the most recent Australian Bureau of Statistics estimates for the defined survey area. Three series of data have been presented in this section, viz:

- Profile of the principal demographics of respondents in the defined survey area;
- Profiles of each of the 'Response to Global Warming' groups; and

- Profiles of those respondents who do / don't classify the Crookwell wind farm as falling within their local rural area.

  Examining the profiles of those who regard the Crookwell wind farm as either falling or not falling within their local rural area we find no significant differences between the two groups other than (as expected) do their major weekly grocery shopping.

  Amongst the global warming analysis groups, the 'Act now' group differs from the other two groups insofar as it has a younger profile (fewer are 55 years or more), has a significant bias towards females and those with a university qualification in its profile. The 'gradual' response group is biased to men and those aged 55 years or more.

Table 42: Demographic profiles

DEMOGRAPHIC PROFILES							
			Q2 Response to Global Warming			Q14D Is Crookwell in your local rural area	
		TOTAL	Act now despite costs	Do not incur costs	Gradual response	Crookwell local - Yes	Crookwell Local - No/DK
WEIGHTED BASE		300	150	52	98	195	105
		%	%	%	%	%	%
Table: 1.0		*Q99BEGCD Number of people aged 18 years or older*					
	1	34%	38%	33%	29%	34%	35%
	2	50%	42% --	57%	60% +	51%	49%
	3	9%	10%	2%	10%	8%	9%
	4	5%	6%	7%	1% -	5%	4%
	5+	2%	4%	0%	1%	2%	3%
TOTAL		100%	100%	100%	100%	100%	100%
MEAN		2.07	2.19	1.97	1.93	2.01	2.19
STD DEV		1.41	1.85	0.77	0.68	1.17	1.8
STD ERR		0.09	0.16	0.12	0.07	0.09	0.19
Table: 2.0		*Q99BEG2 Age*					
18 to 24 years		10%	13%	10%	4% -	9%	11%
25 to 39 years		23%	25%	22%	21%	25%	21%
40 to 54 years		29%	31%	32%	25%	29%	31%
55 years of age or more		38%	31% -	36%	49% ++	37%	38%
TOTAL		100%	100%	100%	100%	100%	100%
Table: 3.0		*Q99BEG3 Gender*					
Male		50%	44% -	56%	56%	50%	51%
Female		50%	56% +	44%	44%	50%	49%
TOTAL		100%	100%	100%	100%	100%	100%

DEMOGRAPHIC PROFILES

	TOTAL	Q2 Response to Global Warming			Q14D Is Crookwell in your local rural area	
		Act now despite costs	Do not incur costs	Gradual response	Crookwell local - Yes	Crookwell Local - No/DK
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Table: 64.0	*Q99CON Gender / Age*					
Male 18-24	5%	7%	8%	2%	6%	4%
Male 25-39	12%	11%	9%	14%	12%	12%
Male 40-54	15%	14%	23%	13%	14%	16%
Male 55+	18%	12% -	17%	27% ++	17%	19%
Female 18-24	4%	6%	2%	2%	3%	7%
Female 25-39	12%	14%	13%	7%	13%	9%
Female 40-54	14%	17%	9%	12%	14%	14%
Female 55+	20%	19%	19%	22%	20%	19%
TOTAL	100%	100%	100%	100%	100%	100%
Table: 55.0	*Q99BCD Town do major weekly grocery shopping*					
GOULBURN	58%	60%	54%	57%	68% +++	40% ---
YASS	26%	26%	24%	29%	16% ---	45% +++
CROOKWELL	10%	7%	15%	11%	14% +++	2% ---
YOUNG	3%	4%	2%	2%	1% --	7% ++
CANBERRA	2%	3%	1%	0%	1%	3%
GUNNING	1%	1%	1%	0%	0%	2%
BOOROWA	1%	1%	0%	0%	1%	1%
COWRA	0%	0%	2% +	0%	0%	1%
GALVERN	0%	0%	0%	1%	0%	0%
ACT	0%	0%	2% +	0%	0%	1%
BALCONNAN	0%	0%	2% +	0%	0%	1%
NOT SPECIFIED	0%	1%	0%	0%	0%	1%
TOTAL	102%	103%	104%	100%	102%	102%
Table: 56.0	*Q99CCD Work status*					
Working full time	49%	50%	48%	49%	48%	52%
Working part time	18%	21%	23%	10% --	16%	20%
Studying full time	2%	4%	0%	1%	3%	1%
Studying part time	1%	0%	4% ++	0%	1%	0%
Undertaking home duties	6%	5%	3%	8%	6%	4%
Retired	23%	20%	22%	29%	25%	19%
Unemployed and looking	0%	0%	0%	1%	0%	1%

DEMOGRAPHIC PROFILES

	TOTAL	Q2 Response to Global Warming			Q14D Is Crookwell in your local rural area	
		Act now despite costs	Do not incur costs	Gradual response	Crookwell local - Yes	Crookwell Local - No/DK
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
for work, or						
On Sick Leave	0%	1%	0%	0%	1%	0%
Self Employed	0%	0%	0%	1%	0%	1%
On Pension	0%	0%	0%	1%	1%	0%
Disability Pension	0%	0%	0%	1%	0%	1%
TOTAL	100%	100%	100%	100%	100%	100%
Filter: Q99C WORK STATUS Working full time TO Working part time						
WEIGHTED BASE	200	106	37	58	124	76
	%	%	%	%	%	%
Table: 57.0	*Q99D Work for company organisation / self employed*					
Work for a company or organisation	69%	72%	65%	67%	71%	67%
Self employed	31%	28%	35%	33%	29%	33%
TOTAL	100%	100%	100%	100%	100%	100%
Filter: Q99C WORK STATUS Working full time TO Working part time						
WEIGHTED BASE	200	106	37	58	124	76
	%	%	%	%	%	%
Table: 58.0	*Q99COD Occupation*					
Upper white	21%	23%	16%	20%	22%	19%
Lower white	30%	34%	31%	23%	35%	23%
Upper blue	30%	26%	42%	32%	29%	32%
Lower blue	19%	18%	11%	25%	14%	26%
					-	+
TOTAL	100%	100%	100%	100%	100%	100%
NO Filter: Base is total sample						
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Table: 59.0	*Q99F Highest education level reached*					
Primary only	2%	3%	3%	2%	2%	3%
Up to 4 years secondary	24%	20%	30%	28%	24%	24%
5-6 years secondary	21%	22%	25%	18%	20%	24%
TAFE qualification	27%	24%	28%	29%	25%	29%
University qualification	21%	26%	14%	17%	22%	19%
		+				
Post graduate	4%	4%	1%	6%	5%	2%
TOTAL	100%	100%	100%	100%	100%	100%

DEMOGRAPHIC PROFILES

	TOTAL	Q2 Response to Global Warming			Q14D Is Crookwell in your local rural area	
		Act now despite costs	Do not incur costs	Gradual response	Crookwell local - Yes	Crookwell Local - No/DK
WEIGHTED BASE	300	150	52	98	195	105
	%	%	%	%	%	%
Table: 60.0	*Q99G Location of home*					
In town?	59%	64%	46% -	59%	63%	53%
Out of town on a small rural residential property?	24%	22%	33%	23%	24%	26%
Out of town on a medium to large farming property?	16%	13%	21%	18%	14%	21%
TOTAL	100%	100%	100%	100%	100%	100%
Table: 61.0	*Q99H Present home ownership status*					
Renting or leasing your home	11%	10%	7%	13%	11%	10%
Have a mortgage which you are paying off, or	34%	38%	27%	30%	34%	34%
Fully own your home?	56%	52%	66%	56%	55%	56%
TOTAL	100%	100%	100%	100%	100%	100%
Table: 62.0	*Q99I Years been resident in area*					
Less than 12 months (.5)	2%	2%	2%	2%	1%	3%
1 to 2 years (1.5)	2%	1%	2%	3%	1%	4% +
3 to 5 years (4)	5%	6%	0%	5%	3%	7%
6 to 10 years (8)	13%	10%	16%	17%	14%	11%
More than 10 years (11)	78%	82%	80%	73%	80%	75%
TOTAL	100%	100%	100%	100%	100%	100%
MEAN	9.91	10.02	10.14	9.62	10.15	9.46
STD DEV	2.46	2.38	2.16	2.71	2.03	3.06
STD ERR	0.14	0.2	0.3	0.27	0.15	0.3

Significance levels: 95% = + or - 99% = ++ or -- 99.9% = +++ or ---

APPENDIX I: RESEARCH METHOD

The research method employed in order to satisfy the research objectives defined for this study, was as follows, viz:

1. Scope

The study was conducted by telephone within a proscribed geographic area as defined by post-codes and locality names in the defined survey area in the Southern Tablelands of New South Wales.

2. Sample Source

The sample was initially derived from the most recent source of Electronic White Pages listing residential numbers in the defined survey area. EPURON in conjunction with ERM provided a listing of locality names and associated postcodes that lay within the bounded survey area. A map of the survey area as agreed with ERM and as provided by ERM has been reproduced and appears on page 3 of this Appendix.

Based on the listing of locality names and post-codes a sample frame was selected from the Electronic White Pages comprising all addresses that contained matching locality names. This approach whilst selecting telephone connected residential dwellings also selected non-residential locations (eg business, institutions) that had to be qualified in the interviewing process and excluded from the sample. From the sample frame compiled in this manner a listing of telephone numbers within the defined survey area was developed.

3. Sample Size

It was determined that a sample size of n =300 be used for this survey. As can be seen from the table below, a survey estimate of 50% of a sample of n = 300 will have a sampling precision of 50 ± 5.7% at the 95% confidence level.

It is important to be aware that when utilising survey sample data, that the precision of each survey estimate is a function of the size of the sample (or sub-sample) to which it relates. Sampling precision is a function of sample size as is reflected in the table below.

Expected Sampling Error (Plus or Minus)
At the 95% Confidence Level
(Simple Random Sample)

Percentage of the sample or sub-sample giving a certain response or displaying a certain characteristic for percentages near:

Size of Sample or Subsample	10 or 90	20 or 80	30 or 70	40 or 60	50
300	3.4	4.5	5.2	5.6	5.7
200	4.2	5.6	6.4	6.8	6.9
150	4.8	6.4	7.4	7.9	8.0
100	5.9	7.9	9.0	9.7	9.8
75	6.8	9.1	10.4	11.2	11.4
50	8.4	11.2	12.8	13.7	14.0

4. Respondent Definition

The respondent in this study was defined as a randomly selected adult (using the nearest birthdate technique) resident in a telephone connected dwelling within the defined survey area.

5. Interview Method

The study was conducted by telephone using a state-of-the-art Computer Assisted Telephone Interviewing (CATI) system operated by Oz Info the data collection associate of Reark.

Fieldwork was conducted to the highest industry standards, the Oz Info field team being quality accredited via the industry IQCA scheme and to ISO).

6. Questionnaire

The questionnaire employed in the study was developed by REARK in conjunction with ERM and EPURON who approved the final questionnaire prior to the commencement of fieldwork. The questionnaire took an average of 17 minutes to administer. A copy of the questionnaire employed in this study is included as Appendix II.

7. Fieldwork dates and outcomes

The questionnaire was subject to pilot and time testing prior to the commencement of fieldwork, which following interviewer briefing and practice sessions commenced on Friday, July 27, 2007. Fieldwork was conducted during the evening and concluded on Thursday, August 2, 2007. Call outcomes were as follows:

Contact outcome	**Response Profile**		
	%	*no*	*%*
Interviews achieved	53.19%	300	12.2%
Quota full	0.18%	1	0.0%
Did not qualify	46.63%	263	10.7%
Respondent not available	0.00%	0	0.0%
Total eligible for screening:	*100.00%*	*564*	*22.9%*
Refused		1,274	51.8%
Language barrier		35	1.4%
Total not eligible for screening:		*1,309*	*53.2%*
Nil contact after specified calls		0	0.0%
Answer machine/fax		73	3.0%
Invalid number		515	20.9%
Total Invalid numbers		*588*	*23.9%*
Total numbers used:		2,461	*100.0%*
Status not determined		816	*24.9%*
Total numbers in use:		3,277	

8. Coding & data analysis

Some questions in the survey questionnaire were free response and these were subject to coding.

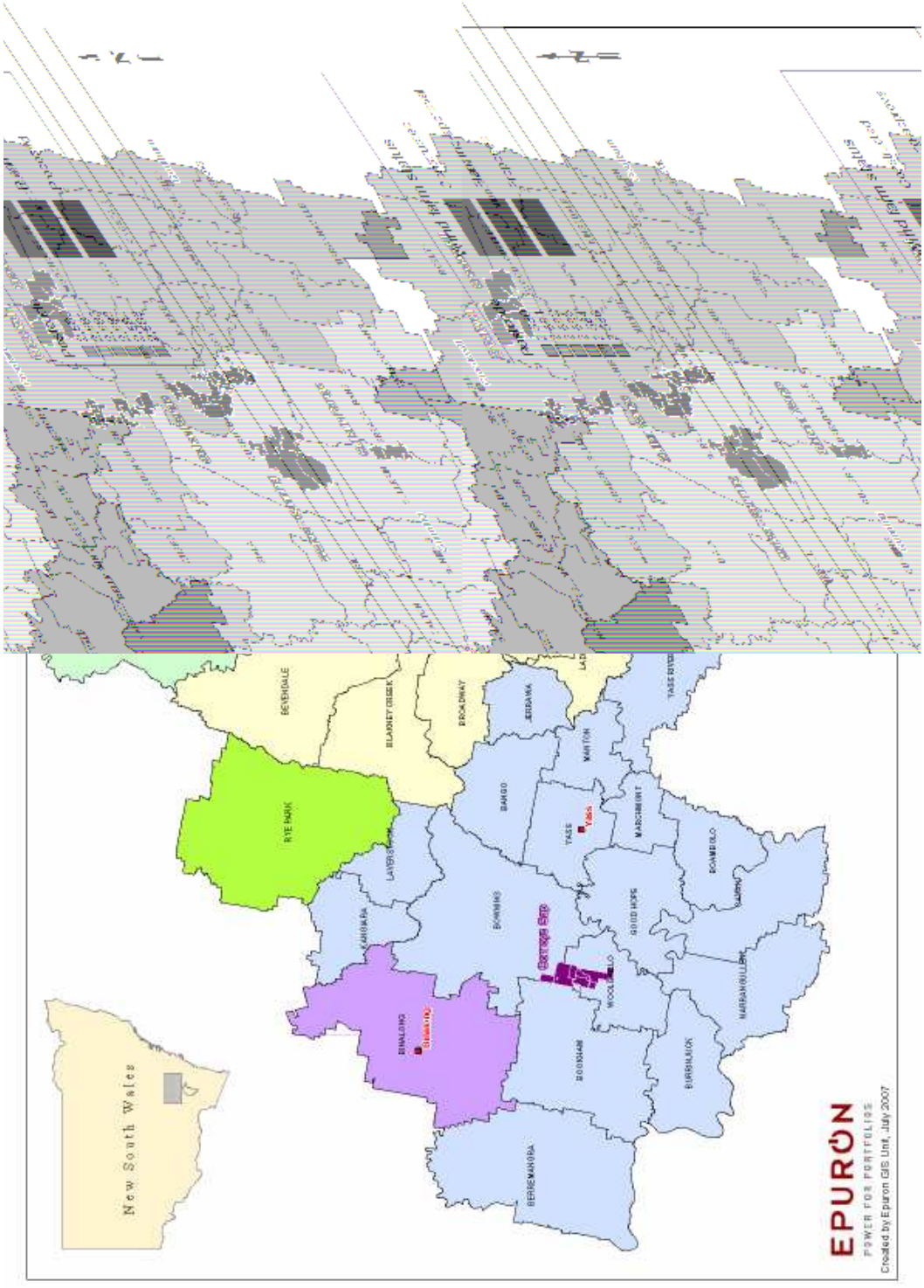
The survey data was post-stratified by Age and Gender based on the most recent Australian Bureau of Statistic census estimates for the defined survey area.

9. Detailed Tabular Results

The detailed tabular results upon which this report has been based have been provided separately.

A data file in SPSS format can be provided on request.

10. Map of defined survey area



APPENDIX II: QUESTIONNAIRE OUTLINE

QUESTIONNAIRE OUTLINE
Windfarm Impact Study – Southern Highlands
EPURON 160707 AR
Version 7 - FINAL
Wednesday, July 25, 2007

INTRODUCTION

Good (…). My name is ….. from Reark Research and at the moment we are talking to people about alternative forms of electric power generation. In this study I must speak to a cross section of the public

a) to help me select the person I need to speak to can you tell me how many persons in this household are aged 18 years or more? *(record #)*
b) In this study I need to speak to the person amongst those *(..say # of people in a)..)* whose next birthday is closest to today's date? Who would that be?

RECORD NAME OF PERSON AND ARRANGE CALL-BACK IF NECESSARY

c) IF LOOKING FOR QUOTA: Can I speak to the *(..man/woman..)* amongst those *(..say # of people in a)..)* whose birthday is closest to today's date?
d) Just to make sure I'm speaking to the correct cross section of people, can you tell me please into which of these age groups do you fall … Are you *(read out)*

- 18 to 24 years
- 25 to 39 years
- 40 to 54 years
- 55 years of age or more

e) If necessary: And are you … *(read out)*

- Male
- Female

PROCEED WITH SELECTED RESPONDENT OR ARRANGE SUITABLE TIME FOR CALL-BACK:

1. Recently there has been much discussion in newspapers on radio and television concerning global warming … Overall how concerned would you say you are right now with the threat of global warming and its impact on the environment … would you say you are … *(read out)*

- Definitely concerned
- Somewhat concerned
- Somewhat unconcerned
- Definitely unconcerned.
- or, Neither concerned or unconcerned

2. Which one of the following statements comes closest to the way you feel *(read out)*

- Global warming is a serious and pressing problem. We should be taking steps now even if this involves significant costs.
- Until we are sure that global warming is really a problem, we should not take any steps that would have economic costs.

- The problem of global warming should be addressed, but its effects will be gradual, so we can deal with the problem gradually

3. Australia's demand for electricity is rapidly increasing. There are a number of ways of meeting this demand one of which involves the use of 'clean energy' sources. Which of the following do you regard as clean energy sources … *(read out)*?

   RANDOMISE ORDER
   - Sun or solar power
   - Wind power
   - Water or hydroelectric power
   - Wave or tidal power
   - Nuclear power
   - Clean coal or gas fuelled power stations where the pollutants are buried

4. a) If there was to be a new electric power station built say within 10 kilometres of where you now live, which of the following energy sources would you approve for use by that new power station? Would you approve … *(read out*)

   RANDOMISE ORDER

   - Sun or solar power
   - Wind power
   - Nuclear power
   - Clean coal or gas where the pollutants are buried
   - *(None of these)*
   - *(Don't know)*

   b) IF MORE THAN ONE: And which one energy source would you prefer to see used by such a new power station?

   c) If the choice was between (*read out list*) … which one energy source would you prefer to see used by such a new power station?

   RANDOMISE ORDER

   - Wind power
   - Nuclear power
   - Clean coal or gas where the pollutants are buried
   - *(None of these)*
   - *(Don't know)*

WIND ENERGY & WIND FARMS

5. a) Recently there have been announcements of wind-farms to be built in the Southern Tablelands, encompassing the Goulburn-Yass region, to generate electricity … had you heard of any of these projects before today?

   - Yes
   - No
   - (*Don't Know*)

   b) Which project or projects was that? (*record name and/or location of project*) *Probe once*: Any others?

6. The electricity from these projects is to be generated via the placement of a number of wind turbine generators in each area. Each generator is a large three bladed

windmill mounted up high on top of a tubular tower and the wind turns the blades to generate the electric power …

a) Were you aware of this type of wind turbine before today?

- Yes
- No
- *Don't Know*

b) Have you seen a picture of a wind turbine of the type I have described?

- Yes
- No
- *Don't Know*

c) And have you ever seen an actual wind turbine of the type I have described?

- Yes
- No
- *Don't Know*

7. A wind farm is a collection of large wind-driven wind turbines of the type I have described … an average to large wind farm makes enough electricity to power a large regional centre …

a) Were you aware of this before today?

- Yes
- No
- *Don't Know*

b) Have you ever seen a wind farm?

- Yes
- No
- *Don't Know*

c) IF 'YES' IN b): Where was that?

- Near Crookwell (Crookwell 1)
- Near Hampton (Hampton)
- Near Blayney (Blayney)
- Elsewhere in NSW
- Elsewhere in Australia
- New Zealand
- Asia
- Europe
- UK
- North America
- Somewhere else

8. CHECK Q.7(b)

a) IF SEEN: How visually appealing do you find the wind farms you have seen?

- Very appealing
- Fairly appealing

- Not too appealing
- Not at all appealing
- or Do you not have an opinion about it

b) IF NOT SEEN: How visually appealing would you expect a wind farm to be?

- Very appealing
- Fairly appealing
- Not too appealing
- Not at all appealing
- or Do you not have an opinion about it

9. Thinking about wind farms as I have described them …

a) What do you consider the major benefits or advantages of wind farms to be? Probe: "What else?

b) And what disadvantages, if any, do you associate with wind farms? Probe: "What else?"

10. Wind farms provide clean, renewable energy that doesn't contribute to global warming through generating carbon dioxide. Some people say they detract from the appearance of the landscape. Which of these two statements comes the closest to the way you feel *(read out)*

a) We need to use wind power as a source of clean energy even if it means changing the appearance of some landscapes, or
b) We should leave the landscapes unchanged even if it means we are not able to use wind power as a source of clean energy

11. Taking into account the arguments you have heard for and against wind farms, what is your general opinion of the wind farm projects like those being built in the Southern Tablelands … would you say you were (*read out*)

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other?

12. How much do you agree with the following statements? *(read out first statement)* And is that (agree/disagree) strongly, or just (agree/disagree) or do you neither agree nor disagree with the statement?

DO NOT ROTATE STATEMENT ORDER

- Wind energy is a good alternative energy source
- Australia should be investing more in wind energy
- I would be happy to see more wind farms in Australia
- Local Government should encourage wind farm development
- Wind farm developments contribute to the local economy
- I would be happy to see a wind farm built on farmland near where I live

SCALE
- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree

- Strongly Disagree

13. And what if it was proposed to build a wind farm within 10 kilometres of where you live now, would that make any difference to the way you feel? Would it make you *(read out)*

- Favour it more
- Oppose it more
- or, make no difference to your opinion

AWARENESS OF WIND FARMS

14. There is presently a small wind farm located near Crookwell in the Southern Tablelands that was constructed in 1997 and has only 8 wind turbines … the wind farm is located to the South East of Crookwell which is about 30 kilometres north-west of Goulburn …

a) Were you aware of the existence of this wind farm near Crookwell before today?

- Yes
- No
- Don't Know

b) IF YES IN Q.14 a): Have you personally, seen the wind farm near Crookwell?

- Yes
- No
- Don't Know

c) IF YES IN Q.14 b): And how often are you in the vicinity to see the wind farm near Crookwell …would it be (*read out if necessary*)

- At least once a day
- Several times a week
- At least once a week
- At least once a month
- Every two or three months
- Three or four times a year
- Once or twice a year
- less often
- (Don't know)

d) ASK EVERYONE: The Crookwell wind farm is located about 10km to the South East of Crookwell … is the Crookwell wind farm in what you would consider to be your local rural area?

- Yes
- No
- Don't Know

e) About how far is the Crookwell wind farm from where you live?
If necessary: Would it be …

- less than 1 kilometre
- 1 to 3 kilometres
- 4 to 10 kilometres
- 11 to 25 kilometres

- more than 25 kilometres
- (Don't Know)

f) And what is your general opinion of the Crookwell wind farm, would you say you are … (*read out*)

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other

15. Scientific tests conducted at wind farms have shown that people need to be less than approximately 800 metres from the wind turbines for them to hear any significant noise, even in extreme wind conditions. Bearing this in mind …

a) Would you favour or oppose a wind farm if it was located ONE KILOMETRE from where you live now? Would that be *(read out)*

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other?

b) Would you favour or oppose a wind farm if it was located THREE KILOMETRES from where you live now? Would that be *(read out)*

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other?

c) Would you favour or oppose a wind farm if it was located TEN KILOMETRES from where you live now? Would that be *(read out)*

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other?

d) Would you favour or oppose a wind farm if it was located TWENTY FIVE KILOMETRES from where you now live? Would that be *(read out)*

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other?

CUMULATIVE IMPACT

16. At present a number of wind farms have been approved, but are yet to be built in the Southern Tablelands … which of the following wind farm developments in the Southern Tablelands were you aware of before today …

- the Conroy's Gap wind farm near Yass with 15 wind turbines
- the Cullerin Range wind farm with 15 wind turbines
- the Gunning wind farm near Gunning with 32 wind turbines
- the Crookwell 2 wind farm near Crookwell with 46 wind turbines
- the Taralga wind farm near Taralga with 69 wind turbines
- None of these

17. Wind farms are usually sited on ridges and hills on private land in rural areas where wind flow is the greatest … wind farms are built in varying sizes depending on local conditions and may contain as few as 8 wind turbines, but typically 15 to 80 wind turbines spaced about 400 to 500 metres apart …

a) Thinking about the local rural area in your vicinity … would you favour or oppose the development of a small wind farm of up to 15 wind turbines in your local rural area? Would that be (*read out*)

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other

b) Would you favour or oppose the development of a typical wind farm with 15 to 80 wind turbines in your local rural area? Would that be (*read out*)

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other

c) And would you favour or oppose the development of a large wind farm with greater than 80 and up to 120 wind turbines in your local rural area? Would that be (*read out*)

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other

18. If for the moment you could imagine a typical wind farm with 15 to 80 wind turbines was sited on the hills or ridges of private farmland in your local rural area … and it was proposed to site another wind farm of similar size in your local rural area …

a) Would you prefer that it was (*read out)*

- sited adjacent to the existing wind farm;
- not adjacent, but nearby the existing wind farm; or
- be located elsewhere in your local rural area further away and out of sight from the existing wind farm

b) IF “BE LOCATED ELSEWHERE”: How far away from the existing site should it be located? If necessary: How many kilometres away?

- RECORD NUMBER OF KILOMETRES

c) Would you favour or oppose the location of two typical wind farms each one of 15 to 80 turbines your local rural area? Would that be (*read out*)

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other

d) Would you favour or oppose the location of three typical wind farms each one of 15 to 80 turbines in your local rural area? Would that be (*read out*)

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other

e) Would you favour or oppose the location of four typical wind farms each one of 15 to 80 turbines in your local rural area? Would that be (*read out*)

- Strongly in favour
- Generally in favour
- Generally opposed
- Strongly opposed
- or …do you not mind one way or the other

19. Finally, if a number of typical wind farms were built on the ridges and hills that you can see when traveling along the main road or highway in your local rural area …

a) Would you prefer the wind farms (*read out*)

- to be concentrated in a few clusters close together; or
- spread out at reasonable intervals along the main road or highway

b) IF “SPREAD OUT” IN Q.19 a): How far apart should those intervals be?

- RECORD IN KILOMETRES

DEMOGRAPHICS

The last few questions I have to ask are to ensure we have a good cross section in our sample …

A LOCATION
Can you tell me what your post code is there? (*record postcode*)

B SHOPPING
In which town do you do your major weekly grocery shopping? (*record town name*)

C OCCUPATION
Are you currently… (*read out*)

a. Working full time
b. Working part time
c. Studying full time
d. Studying part time
e. Undertaking home duties
f. Retired
g. Unemployed and looking for work, or
h. Something else (Specify _____)

ASK IF WORKING FULL TIME or PART TIME:

D Do you work for a company or organisation or are you self employed?

1. Work for a company or organisation
2. Self employed

E And what is your occupation

.....

Record verbatim above and then code into category below:

1. Upper white
2. Lower white
3. Upper blue
4. Lower blue
5. Not employed/retired/pensioner/student

F EDUCATION

Which of the following best describes the highest education level you have reached?

READ AND CODE ONE ONLY.

- Primary only
- Up to 4 years secondary
- 5-6 years secondary
- TAFE qualification
- University qualification
- Post graduate

G URBAN/RURAL RESIDENT

Is your home located …

READ AND CODE ONE ONLY.

- In town?
- Out of town on a small rural residential property?
- Out of town on a medium to large farming property?

H HOME OWNERSHIP

And are you presently …

READ AND CODE ONE ONLY

- Renting or leasing your home
- Have a mortgage which you are paying off, or
- fully own your home?

I PERIOD OF RESIDENCE
Finally, how long have you been a resident in this area … Would it be (*read out)*

- Less than 12 months
- 1 to 2 years
- 3 to 5 years
- 6 to 10 years
- More than 10 years

PRIVACY STATEMENT

REQUIRED PRIVACY CLOSE:
Thank you, that's the end of the interview. As this is market research it is carried out in compliance with the Privacy Act would you like to know more?

Read out if wanted:
The information you provided will be used only for research purposes. Once this project is completed your contact details will be removed from your responses in approximately four months time. Under the Privacy Act you have the right to request access to the information you have provided.

Read to all:
As part of quality control procedures, someone from our project team may wish to re-contact you to ask a couple of questions verifying some of the information we just collected. Can I confirm your phone number?

Thanks again for your time, just to remind you I'm from Reark Research. If you have any queries you can call the Market Research Society's Survey Line on 1300 364 830.