# Kyoto energypark

### Appendix B(i)

Visual Assessment Study
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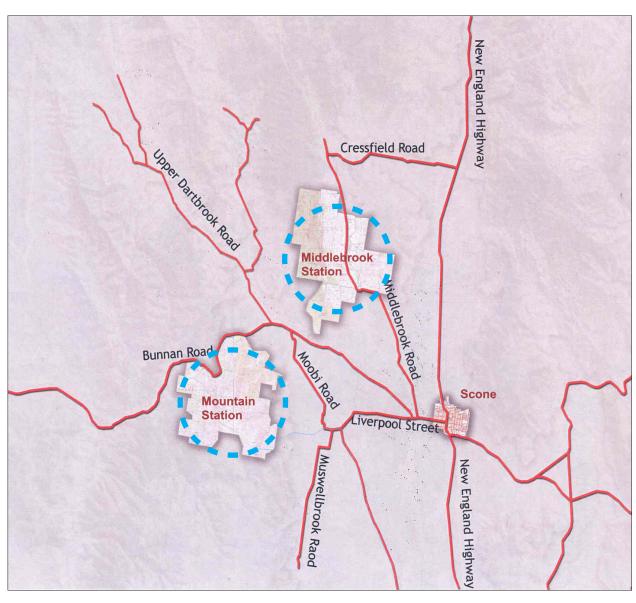




Figure 1.1 | Location of Wind Farm sites within the Kyoto Energy Park.



#### Existing Visual Environment Viewing Locations Landscape Setting · local settings Viewer sensitivity to change in landscape sub-regional settings visibility regional settings · land use distance Proposed Development of Kyoto Energy Park locality list of elements · visual character of elements **Existing Planning Framework** DIP Directors requirements <u>Analysis</u> Visual Effect Viewing Sensitivity Interaction between development visibility and landscape at various distances · land use from site distance contrast integration % of primary view area Visual Impacts high moderate low Treatments Reduce Visual Effects Reduce Visual Sensitivity reduce visual effect · reduce visibility increase integration New Visual Setting Kyoto Energy Park in visual settings of local, sub regional and regional landscapes

Figure 2.1 | Visual Assessment Methodology

Distance Zone	Distance	Visual Experience		
Foreground	Normally 0 - 1km	Based on ability to perceive detail.		
<b>for Wind Farm</b> Near Foreground	for Wind Farm 0 - 1km	Dominance of wind farm elements greatest as little landscape context available.		
Foreground	0 - 2.5km Foreground	Appreciation of wind farm elements still strong, but more landscape context available.		
Middleground	Normally 1 - 5/6km	Based on ability to still being able to appreciate vegetation texture.		
<b>for Wind Farm</b> Near Middleground	for Wind Farm 2.5 - 7.5km	Wind farm still major element but more landscape context.		
Middleground	7.5-12.5km	At this distance seen area covered by wind farm starts to significantly reduce.		
Background	Normally 6km	At this distance view appreciation mainly overall form, shape, line, detail lost.		
for Wind Farm Background	for Wind Farm Greater than 12.5km	Past 10km the visual significance of the wind farm reduces significantly due to ever decreasing area covered by wind farm in total view.		

Figure 2.2 | Distance Zones

Landscape	Visual Quality			
Features	Distinctive Visual Values	Common Visual Values	Minimal Visual Values	
Land Form	Strong vertical elements such as very steep slopes, varied terrain, rock outcrops, cliffs	Steep to moderate slopes and hills	Little undulation to flat lands	
Vegetation	Strong variety in colour, texture values created by forest	Interesting visual patterns created by mix of treed cover and grassland	Minimal variety of colour, pattern or line created by a dominance of grassland	
Water Features	Open water in various forms	Strong drainage lines with some water flow	Weakly defined drainage lines	

Figure 2.3 | Visual Quality



Visual Properties		Visual Effect Levels		
Contrast Levels with elements in primary view zone	Visual Integration with elements in primary view zone	High Visual Effect	Moderate Visual Effect	Low Visual Effect
High  Development elements do not borrow, form, shape, line, colour or texture or scale from existing features of the visual setting and contrast levels are high with existing landscape and or	Low  The development lacks integration with visual setting because of scale totally dominating the ability of site or surrounding features, vegetation and or topographic features to integrate the development.	it occupies more than 5% of the primary view shed half cone area	It occupies between 2.5 – 5% of the primary view shed half cone area	It occupies less than 2.5% of the primary view shed half cone area
Development Elements borrow from some features of the visual setting in terms of form, shape, line pattern and or colour and scale, reducing visual contrast with existing setting and or	Moderate  The development has some degree of visual integration with setting from other features, vegetation and or topography achieve some level of integration	It occupies more than 20% of the primary view shed half cone area, generally when in a foreground location	It occupies between 20-5% of the primary view shed half cone area.	It occupies less than 5%
Low  Development Elements borrow extensively from features in visual setting in terms of form, shape, line, pattern colour and scale minimizing contrast with the existing setting and or	High  Visual integration is high due to other features, vegetation and or topography achieving dominance and screening or filtering	The development occupies more than 40% of the primary view shed half cone area.	The development occupies 40-20% of the primary view shed half cone area	The development occupies less than 20% of the primary view shed half cone area

Figure 2.4 | Visual Effect
The basis for determination of the percentages is discussed in volume one section 2.7.



Ar	ea of Primar	y View Zone at various distances from Wind Farm
Distance from wind farm	Area of Primary View Zone	Primary View Zone is an arc suspended by 30 degree angle
1 km	0.52 km <sup>2</sup>	both sides of the horizontal central view line as well as 30
2 km	2.09 km²	vertical plain degrees above it
3 km	4.71 km²	
4 km	8.38 km²	30°
5 km	13.07 km²	30°
6 km	18.85 km²	
7 km	25.65 km²	Central View Line
8 km	33.51 km²	30°
9 km	42.41 km²	
10 km	52.36 km²	
11 km	63.35 km²	
12 km	75.40 km²	
13 km	88.49 km²	` \\'
14 km	102.62 km²	
15 km	117.81 km²	
		Position of eye at Viewer Location.

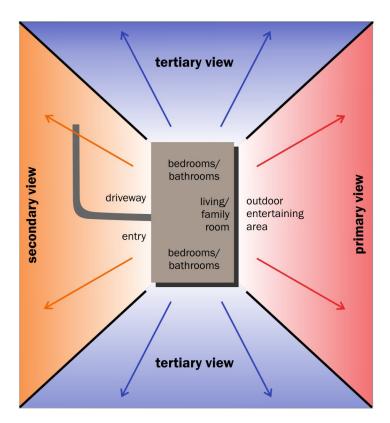
Figure 2.5 | Area of Primary View zone at Various Distances from Wind Farm



	Visual Sensitivity Levels			
Land Use	Nearest visible Turbine less than 2.5km away	Nearest visible Turbine between 2.5 - 7.5 km away	Nearest visible Turbine between 7.5 - 12.5km away	Nearest visible Turbine more than 12.5km away
Urban and Rural Houses	High Sensitivity	High/Moderate Sensitivity	Moderate Sensitivity	Low Sensitivity
Designated Picnic Areas, Lookouts and walking rails in recreation reserves, national parks & nature reserves, etc.	High Sensitivity	Moderate Sensitivity	Low Sensitivity	Low Sensitivity
Designated tourist & main roads - New England Hwy	High Sensitivity	Moderate Sensitivity	Low Sensitivity	Low Sensitivity
Less Utilised Public Lands in national parks, state forests, etc.	Moderate Sensitivity	Low Sensitivity	Low Sensitivity	Low Sensitivity
Other Main Roads: Bunnan and Dartbrook Roads	Moderate Sensitivity	Low Sensitivity	Low Sensitivity	Low Sensitivity
Minor Local Roads in Rural Zone	Moderate/Low Sensitivty	Low Sensitivity	Low Sensitivity	Low Sensitivity
Broad acre rural lands	Low Sensitivity	Low Sensitivity	Low Sensitivity	Low Sensitivity

Figure 2.6 | Visual Sensitivity







Primary View Zone

Primary View Zone is that area to which indoor and outdoor 'living' areas are visually orientated - usually the best views.



Secondary View Zone

Secondary View Zones are those areas where secondary views are important views from driveways, bedrooms, etc.



Tertiary View Zone

Tertiary View Zones are those areas that visually relate to service areas and internal bathrooms, laundries, back doors, minor rooms etc.

Note: It should be noted that as one approaches the house along a driveway a 'primary' view is obtained. A 'secondary' view is obtained as one moves away from the house.

Figure 2.7 | Residential View Zones

	Visual Sensitivity			
Visual Effect	High	Moderate	Low	
High	High visual	High/Moderate	Moderate/Low	
	Impact	Visual Impact	Visual Impact	
Moderate	High /Moderate	Moderate Visual	Moderate/Low	
	Visual Impact	Impact	Visual Impact	
Low	Moderate/Low	Moderate/Low	Low Visual	
	visual Impact	Visual Impact	Impact	

Figure 2.8 | Visual Impact

