Urban Scale Wind Energy: Viability and planning implications

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Urban Scale Wind Energy

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Introduction and key points:

1. 'Urban' scale generation

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Introduction and key points:

- 1. 'Urban' scale generation
- 2. Site Viability and Assessment

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Introduction and key points: 1. 'Urban' scale generation 2. Site Viability and Assessment 3. Market barriers and opportunities Urban Scale Wind Energy Introduction and key points: 1. 'Urban' scale generation 2. Site Viability and Assessment 3. Market barriers and opportunities 4. Conclusion Urban Scale Wind Energy GLOBAL Edge.

1.0 Urban Scale Generation



Image courtesy of Aerogenesis

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 Urban context and size

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1.0 Urban Scale Generation

• Urban context and size

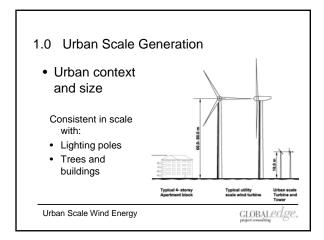


'Proven' turbines, in Wembley, UK

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1.0 Urban Scale Generation • Urban context and size Typical 4- storey Apartment block Typical utility scale wind further and Truthers and Truthers



 Urban context and size

SIZE AND OUTPUT

Model Output Tower Rotor

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1.0 Urban Scale Generation

 Urban context and size

SIZE AND OUTPUT

Model Output Tower Rotor Aerogenesis 5kW 20m 6.0m



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 Urban context and size

SIZE AND OUTPUT

Model Output Tower Rotor Aerogenesis 5kW 20m 6.0m Westwind 10kW 20m 6.0m



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1.0 Urban Scale Generation

 Urban context and size

SIZE AND OUTPUT

 Model
 Output
 Tower
 Rotor

 Aerogenesis
 5kW
 20m
 6.0m

 Westwind
 10kW
 20m
 6.0m

 Proven
 15kW
 15m
 9.0m



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1.0 Urban Scale Generation

- Urban context and size
- Building- mounted

Urban Scale Wind Energy

- Urban context and size
- Building- mounted





Images from Ropatec, Italy.

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2.0 Site Viability and Assessment

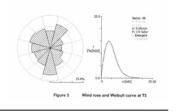
- Wind energy output
- Local amenity issues

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2.0 Site Viability and Assessment

• Wind energy output



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2.0 Site Viability and Assessment	
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2.0 Site Viability and Assessment	
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Local amenity issues	
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Noise levels- conclusions	
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2.0 Site Viability and Assessment	
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Noise levels- testing	
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3.0 Market Barriers ar	nd Opportunities			
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3.0 Market Barriers ar	nd Opportunities			
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3.0 Market	Barriers and Opportu	unities	-		
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3.0 Market Barriers and Opportunities	
Imported products	
• Cost	
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Direct connections to buildings	
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4.0 Conclusion	
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4.0 Conclusion	
Interest from communities and	
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l	4.0 Conclusion		
l	 Interest from communities and 		
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l	 Misperceptions about impacts Lower relative costs through higher		
l	outputs		
	Local govt support is critical for		
	community acceptance		
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