

Udny Community Wind Turbine

Garth Entwistle

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Udny Community Council

Community wind turbine

- Concept - to Community Council 2006
- *“Community Wind Turbine Group”* formed:
- Investigate opportunity
- Group stabilised with (5) committed members
- Advice sought – various bodies
- Community Energy Scotland (HICEC)

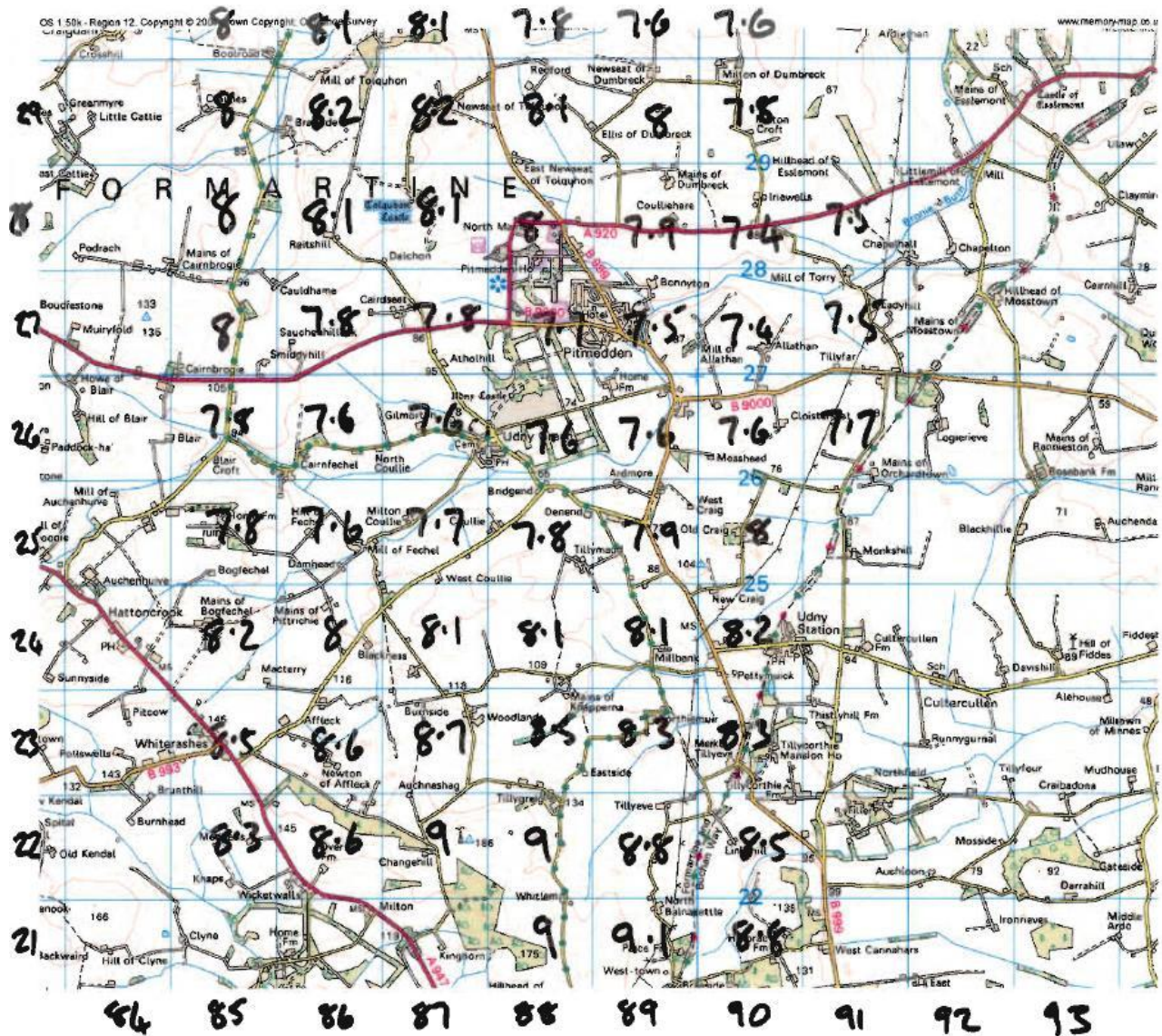
Community Turbine - 2007

- Some progress – some dead-ends
- Progress dependent on time available
- Financial projections – encouraging
- Site selection – good
- Consultation with statutory consultees

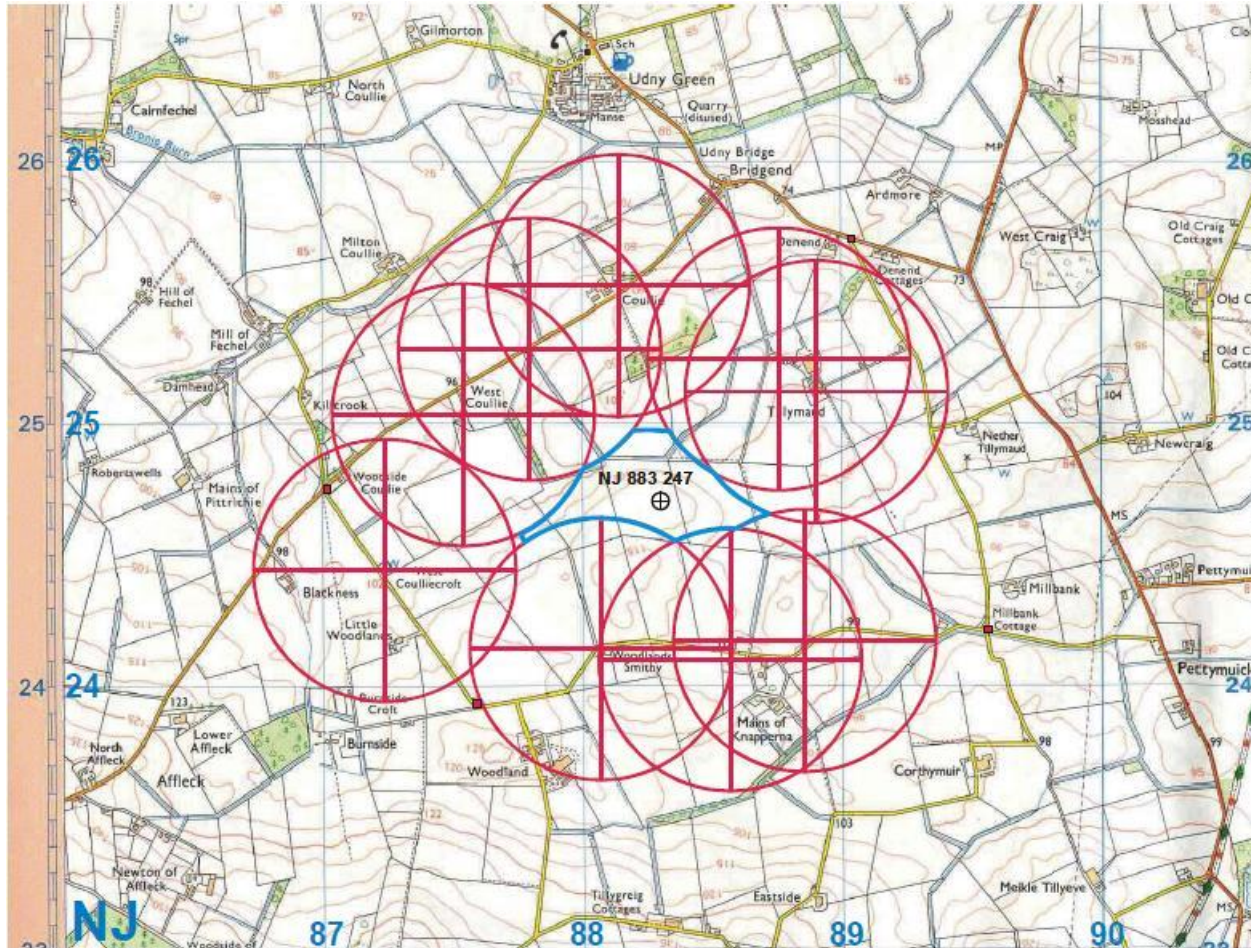
Site selection

- Wind speed map of the parish
- Grid connection costs – consultation with SSE
- Identification of sites with 500m separation
- Initial discussions with land owners

Udny wind speeds



Udny Site selection



Location map (1:25,000 scale, OS) showing the 500m radius circles centred on nearest dwellings that define the location area (blue) of the wind turbine (Udny Community Wind Turbine Group, January 2008)

Financials



Community Energy Scotland
Cumhachd Coimhearsnachd na h-Alba

This spreadsheet is not a substitute for seeking professional advice

Please read the notes associated with this spreadsheet and the accompanying step by step guide before making and changes or interpretation of this spreadsheet.

Community Wind Farm				Total MW	0.8	Sales to individuals	0.00%	%	at	0.075				
				Capacity	33%	Sales to Grid	100.00%	%	at	0.06				
Est. full Capital Costs				PPA Price per kWh	£0.0980	Roc Income	100.00%		at	0.038				
Equity	0%			Output	MWh	2,313	resulting average price		at	0.098				
Grant	35%													
Loan / Bond (10 year term)	65%			Loan / Bond 1 rate	6.50%									
Inflation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 15	Year 20	
	£,000	£,000	£,000	£,000	£,000	£,000	£,000	£,000	£,000	£,000	£,000	£,000	£,000	
Income	227	227	227	227	227	227	227	227	227	227	227	227	227	
Operating Expenses	39	39	39	39	39	39	39	39	39	39	39	39	39	
DUoS Grid charges	7	7	7	7	7	7	7	7	7	7	7	7	7	
Depreciation (years)	63	63	63	63	63	63	63	63	63	63	63	63	63	
Admin	5	5	5	5	5	5	5	5	5	5	5	5	5	
Operating Profit (Profit Before Financing costs)	114	114	114	114	114	114	114	114	114	114	114	114	114	
Less Bank Loan Interest 1	51	47	43	38	33	17	11	4						
Less Bank Loan Interest 2	0	0	0	0	0									
Net Profit/Loss (PAFC)	63	67	71	76	81	97	104	110	114	114	114	114	114	
Retained profit	63	67	71	76	81	97	104	110	114	114	114	114	114	
Cashflow														
Profit + depreciation	126	130	134	139	143	160	166	173	177	177	177	177	177	
Less bank loan 1 capital	60	64	68	72	77	94	100	107						
Opening cash	0	66	132	198	264	462	529	595	661	837	1,014	1,368	2,252	
Closing cash	66	132	198	264	330	529	595	661	837	1,014	1,191	1,545	2,428	

Community Turbine 2008

- Community consultations
- Initial application to the **Big Lottery Fund**
- Planning application
 - Pre-planning application – Ab'shire Council
 - Tender wind planning consultants
 - Grant applications to finance planning consultants to prepare planning application
- Grid Connection

Community Consultations

- Feb 2008 – “Near Neighbours”
- May 2008 – “Planning for Real”
- Nov 2008 – “Community Ballot”

Planning application

- Specification of planning requirements – pre-planning application / meetings with Ab'shire Council
- Specification of tender & tender list
- Tender – use of tender to win grant aid
 - **LEADER** **£15,562.00**
 - **SCHRI** **£ 6,593.75**
 - **Lottery** **£ 6,594.00**
- Commissioning of planning application

Grid Connection

- Huge adventure!
- Offer required an initial payment of £52,000 by March 2009 – where to get this
- Individual liabilities!
- Company formation
- Secure grant aid / bridging loan

Wind Turbine 2009

- Company formation
 - Udney Community Wind Turbine Ltd
 - Udney Community Trust Ltd (charitable)
- Planning submission – April/May
- Fund raising - £1.25m!
- Community involvement – ramp it up!

Benefits

- £50k – £150k / year to the community
- **Proposals :-**
- Community Action (50%)
- Community Organisations (25%)
- Charitable support (10%)
- Youth Scholarship (5%)
- Environmental Action (10%)

Lessons from Udney

- **Persevere** – many hurdles / barriers / disappointments
- **Team work** – essential to share the load, encourage each other & take responsibility
- **Community support** – essential to justify activity
- **Seek good advice** – essential

Good Luck