NOTTINGHAM ENERGY PARTNERSHIP

Feed in tariffs

A view from the front line!

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Who are NEP?

NEP are an independent charity and social enterprise driving the climate change and energy agenda by working in partnership across all sectors.

~ Delivering carbon and energy savings since 1997, from strategy to practical action ~

Not just Nottingham!

Energy savings =
Carbon savings =
Financial savings

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Where else has FITs

As of 2009, 63 jurisdictions around the world have FITs, including :

Austria	Denmark	Israel
Belgium	Estonia	Italy
Brazil	France	The Republic of Korea
Canada	Germany	Lithuania
China	Greece	Luxembourg
Cyprus	Hungary	the Netherlands
the Czech Republic	Iran	Portugal
Singapore	Republic of Ireland	South Africa
Spain	Sweden	Switzerland
Turkey	12 US states	India
Mongolia		

The UK is late to FITs , they are an established and effective and low cost public cost way of rapidly deploying small scale renewable energy.

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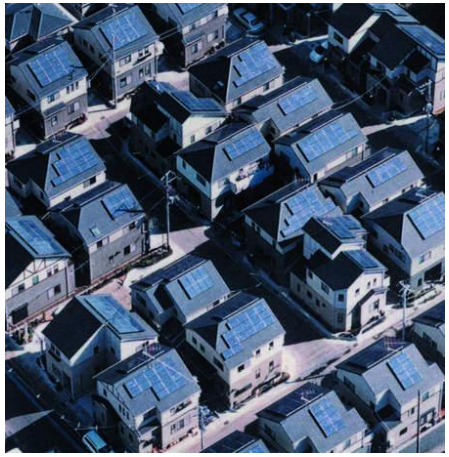
What we can expect



- Domestic installations –Now viable secure investment 5-8%, better than bank. Well off households with capital or credit
- Commercial installations eg Munich 1MW, just feed into grid 7-10% -stable guaranteed ROI.
- Commercial/domestic- Major companies buy roof space use across social housing and businesses. Take FITs+ export
- Solar clubs, community lead investment schemes

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Case study 1 Meadows ESCO

- Low income deprived inner city community
- High fuel poverty, no capital
- Energy resources –wind turbine site and rooftops
- Sets up community energy company (ESCO)
- Receives £600K LCC grant
- Purchases loads of PVs for social housing, private homes and schools
- Hosts sign over FITs and export to ESCO
- Panels remain owned by ESCO
- Contracts and legal issues all worked out with LCCC money
- Partnership with British Gas
- C£25Kpa revenue for local energy projects

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Community wind turbine

- Developing 330 kW wind site
- City centre
- Fantastic community support, ***people know the money will stay locally***
- Issues with bats
- ROI looks good even with some shut down time to avoid bats
- Capital will be the problem
- Well-off area could raise local investors.
- Costs more like £1m than £650K, after cables (£220K), development exchange rate etc.
- Maybe better off with 2nd hand turbine!

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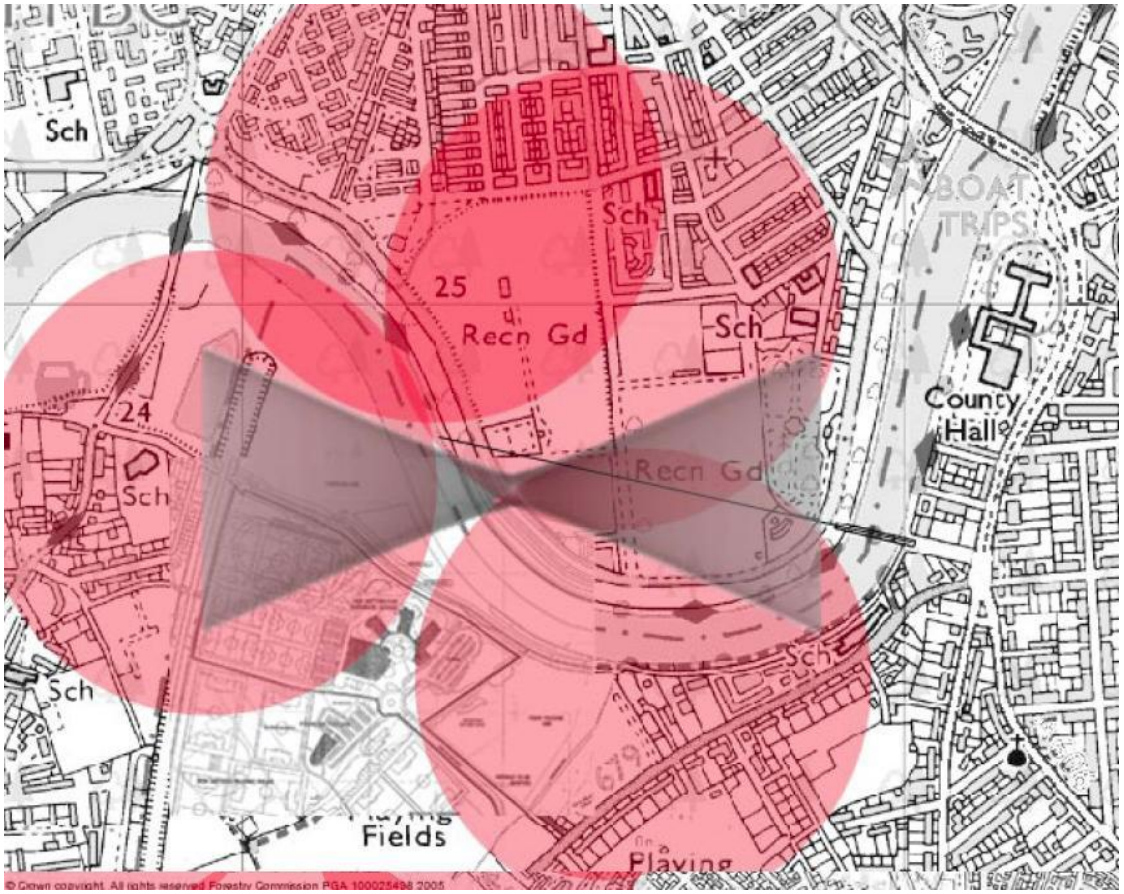
330kW Turbine @ £1m

FITs Rate	18.8p
Annual output (MWh)	705
Equivalent to power	210 homes
Annual revenue less Opex	C£131K
IRR	15.94%
Payback (years)	6.27
Final profit 20 years (£M)	2.09
Total revenue (£M)	3.75



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Case study 2
NHS Nottinghamshire

- PCT working to cut emissions and energy price vulnerability
- Want revolving ‘invest to save’ fund
- Cannot borrow money (SALIX)
- Cannot pass income from 1 year to next
- Cannot easily use revenue for capital
- Install PVs on health centres and annual FITs income can be spent on energy projects
- Fair ROI, OK carbon savings
- Payback time and ROI not the only metrics
- Purchasing renewables with guaranteed FITs can be seen as long term purchase of power supply at fixed per unit cost.
- **No carbon savings for CRC**

Generation-Next

Making Money from Thin Air

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Case study 3- NEP Wind project

- A small turbine costs around £25K and can earn around £5Kpa at a good site
- NEP will pay 2/3 cost of development, purchase and running costs of small wind turbine
- School or land owner pays 1/3
- Profit is shared 2/3, 1/3
- NEP takes FITs, school get savings from power

Making Money from Thin Air:

Income

How the income is split between sources:

Based on 2.5% RPI and 5% energy price inflation. 100% onsite use

	10 Years	20 Years
FITs and export	£33,400 (70%)	£74,000 (67%)
Savings on bills	£14,000 (30%)	£36,700 (33%)
Forward Price of Energy	9 pence per kWh	4.5 pence per kWh

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NEP expertise

NEP manages:

- planning,
- purchase,
- installation
- maintenance

NEP supports:

- educational integration
- community engagement

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Case study 4- New PFI health centre

- Site needs to be BREEAM excellent
- Outstanding on many aspects, energy lets it down
- Renewables seen as over cost by contractor
- Negotiation with contractor to sign over FITs + export in return for installation of PVs
- Unsuccessful due to potential problems with future shading and risk.
- Good model would have worked with small (C£15K) capital input from PCT to ensure ROI protected.
- PFI and other landlords should be approached to negotiate installations to cut tenant energy use, increase profile, meet local renewable targets

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Other opportunities

PV shading over car parks-

Adaptation and mitigation, sell power to EV charging points and earn FITs

PVs to generate heat and power-

Use them power ground/air sourced heat pumps earn FITs for power and RHI for heat.

Consider community engagement and educational value-

Solar clubs and local ownership can create powerful local activism and educational tools in energy and carbon reduction.

Thank you

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