

FITs associated with Solar PV installation

Notes re the tax considerations

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The tax implications of locking into FITs via solar PV installation

Page 1 of 8

The purpose of this briefing note is to introduce the tax issues that need to be addressed as part of the installation of renewable energy sources, in particular solar.

1 **Background**

- 1.1 Structures are the key to successful tax planning. The structures need to integrate with the business and personal objectives of the individuals and families affected.
- 1.2 Structures need review from time to time, as business and family objectives change, and any new project should result in such a review. Even if the existing structures require no alteration one needs to decide how the new project is most effectively included within them.
- 1.3 A Solar PV installation is a long term project with the potential for significant cash flows and it is not sensible to plan this by simply looking at the business and family structures in the short term.
- 1.4 New projects will usually only be undertaken if they are expected to be profitable. Minimising tax will maximise the profit.
- 1.5 This note is not intended to be a 'recipe' for any specific situation but rather to illustrate the areas that need to be considered and the possibilities that could be available.
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2 **landtax llp**

- 2.1 We are a specialist team of 12 tax consultants providing UK tax advice to private clients.
- 2.2 Full details are available on our website at www.landtax.co.uk.

The tax implications of locking into FITs

via solar PV installation

Page 2 of 8

3 **Costs associated with the installation**

3.1 The costs will broadly fall into two components:

3.1.1 Any work needed to the roof itself. It may be, for example, that the roof needs to be replaced in any event and this is simply a convenient opportunity for the repair. Alternatively, some works may be needed to facilitate the installation of the panels themselves.

3.1.2 The cost of the panels and associated electrical work.

3.2 If the roof is repaired normal principles will apply. Typically, the cost of this is likely to be borne by the existing business but this may not be the best option if the existing business is loss making. If there will be a problem in getting tax relief in the existing business there may be merit in seeing if effective relief can be obtained within a separate 'solar' business by linking the repairs to this project.

3.3 Ancillary costs are likely to either be plant themselves or be ancillary building alteration costs which qualify as plant as a result of s25 CAA 2001 as being ancillary to the installation of plant (the solar panels).

4 **Capital allowances**

4.1 The panels themselves do not qualify for the enhanced capital allowances ('ECA') available to energy saving plant (see <http://www.eca.gov.uk/etl/claim/>). On enquiry we were told by the ECA Team that:

The ECA scheme supports technologies that save energy including those that take energy from external, natural energy sinks (e.g. solar radiation, ground heat) and convert it into useful heat. Technologies that generate energy such as PV do not directly save energy per unit of work but instead displace the consumption of fossil fuels so as to reduce CO2 emissions (i.e. the same goal is achieved through slightly different means) are not covered by the ECA scheme. That means PV is not covered by this government policy instrument. It is covered by other policy instruments such as the renewable obligation and central or local government grant schemes. That means a good level of government support for PV exists without the use of the ECA scheme.

From which we assume it is not likely accreditation will be given in respect of PV on the basis the existing grant scheme is considered to be generous enough.

4.2 It is to be expected the panels will be classified as long life assets.

A '*long-life asset*' is plant or machinery which can reasonably be expected to have a useful economic life of at least 25 years (or where such could be reasonably expected when it was new). The useful economic life is taken as the period from first use until it ceases to be, or to be likely to be, used as a fixed asset of a business.

4.3 Long-life assets qualify for a lower rate of writing-down allowances (WDAs) than other plant and machinery. There is a separate pool - the long-life assets

The tax implications of locking into FITs

via solar PV installation

Page 3 of 8

pool, now called the special rate pool - that contains all the expenditure on long-life assets. WDAs are presently given at an annual rate of 10% on the reducing balance basis on the expenditure in that pool. This is planned to reduce to 8% from April 2012.

- 4.3.1 In general HMRC will follow the accounting treatment (the period over which the asset is depreciated) in deciding if an asset is a long life asset. However, if the project life is 25 years, being the guaranteed period of the FITs on which the investment is made, it seems difficult to see how the panels can be depreciated over a shorter period, although this may depend on the guarantee period.
- 4.3.2 In their August 1997 Tax Bullitin HMRC give the following example:
A new type of generation plant is built using new and unproven technology. The manufacturers claim that the turbines have a working life of between 20 and 30 years. The operator depreciates the turbines over 15 years, being the length of the contract to supply electricity to the electricity company. It is impossible to predict whether the turbines will be used after that. We accept that they are not long-life assets.
- 4.4 There are several points to note:
 - 4.4.1 Equipment in offices and shops and businesses spending less than £100,000 a year on long-life assets is generally excluded and the annual investment allowance may be available. The exception to the long life asset regime applies where the individual (not company) incurring the expenditure devotes substantially the whole of his time to the qualifying activity. The monetary limit is £100,000 and is assessed by reference to the chargeable period (of 12 months) in which the expenditure is incurred. This will only be relevant on a small installation where the expenditure is incurred as part of an existing business so in practice is unlikely to apply.
 - 4.4.2 There is not a balancing adjustment when the last long-life asset ceases to be used of if the business continues and there are either no sale proceeds, because the items are scrapped, or the sale proceeds are less than the tax written down value. Balancing adjustments only arise if the qualifying activity, for which the allowances are claimed, is permanently discontinued.
 - 4.4.2.1 A £100,000 spend will result in allowances of £87,834 over 25 years leaving £12,166 of unrelieved expenditure. If the rate of allowances is reduced (it was only 6% until 2008 and has already been reduced from 10% to 8%) this could have a material effect on unrelieved expenditure, and to the tax liability year on year due to reduced allowances.
 - 4.4.2.2 If the panels are scrapped and the business of power generation is a separate business then a balancing allowance of the unrelieved expenditure will be available. Loss relief may be available but how to achieve this will need to be considered.

The tax implications of locking into FITs via solar PV installation

Page 4 of 8

4.4.3 The Government has, overall, been reducing the rate of capital allowances over recent years. Whilst this Government says it wishes to have a stable regime for business, in practice this is not happening. The withdrawal of industrial buildings allowances and agricultural buildings allowances are examples of where the Government has no hesitation in effectively retrospectively withdrawing the allowances on which investment decisions were made. If you do not get a full tax allowance on the cost this will have an impact on the returns because of the extra tax that will have to be paid.

5 **Splitting the new solar business from the existing business / building**

5.1 The first point is that the property may already be owned outside the business structure (and this may present its own challenges or opportunities).

5.2 The second point is that the grant of a lease to the new solar business will have tax consequences.

5.2.1 SDLT will be chargeable based on the length of the lease and the rent passing.

5.2.2 Capital Gains Tax may arise if the lease is not at a full market rent.

5.3 If one is looking to maximise income to a new entity one will not wish to make a commercial charge for the use of the existing premises and various tax implications will result from a low, or nil, rent charge.

5.4 Consideration will need to be given to the existing business structure and how best to give rights to operate the solar business to a new entity which do not give rise to an SDLT or Capital Gains Tax charge.

5.5 Reasons for splitting the solar enterprise could include:

5.5.1 An opportunity to produce income for a non-working spouse.

5.5.2 To give a pension in retirement to enable the existing business to be sold / gifted to the next generation / wound up.

5.5.3 To produce an income stream that can be diverted to grandchildren to fund school and university costs.

5.6 Separate consideration will be needed where borrowing is required to fund the installation. It may be possible to structure such borrowing to reduce Income Tax charges at 50% while the income generated is taxed at a lower rate.

The tax implications of locking into FITs

via solar PV installation

Page 5 of 8

6 **VAT**

6.1 We need to consider:

6.1.1 the inputs - the initial supply of panels and their fitting plus annual maintenance costs and

6.1.2 the outputs - the supply of electricity and the FITs

6.2 In relation to the inputs, we are looking at a major expense which will have a VAT charge on it at the standard rate. The business involved in incurring the capital expenditure, if not already registered, will need to register for VAT to enable full recovery of input VAT.

6.3 The supply of electricity will be either back to the grid or to the business of the client. These supplies will usually be standard rated in the usual way and it is these supplies that will give the right to registration by the separate PV business, where this has been separated from the main business carried on by the client.

6.4 The FITs themselves are a subsidy which should be outside the scope of VAT.

7 **Exemption from tax**

7.1 There is an exemption from tax for small scale receipts.

7.2 The legislation is in ITTOIA 2005 as follows:

782A Domestic microgeneration

(1) No liability to income tax arises in respect of income arising to an individual from the sale of electricity generated by a microgeneration system if—

(a) the system is installed at or near domestic premises occupied by the individual, and

(b) the individual intends that the amount of electricity generated by it will not significantly exceed the amount of electricity consumed in those premises.

(2) In subsection (1)—

“domestic premises” means premises used wholly or mainly as a separate private dwelling, and

“microgeneration system” has the same meaning as in section 4 of the Climate Change and Sustainable Energy Act 2006.

7.3 This note is concentrating on business premises where the tax exemption will not apply. It is understood, at the time of writing this briefing note, that HMRC will be publishing their view of ‘significantly exceeds’ in a few months time.

The tax implications of locking into FITs

via solar PV installation

Page 6 of 8

Illustrative case studies

8 **Personally Owned (Small Sized Commercial):**

8.1 Background

8.1.1 Approximate roof size 6m by 20m (south face only) with a south facing 37 degree pitch.

8.1.2 The client (husband)/ his business are capable of self financing; owners' dilemma is whether to leave the investment in the business, attach it to the property or to make the investment personally.

8.1.3 The building is owned by the husband and the wife does not work and has little income.

8.2 Options include:

8.2.1 Fund with own money as part of business. Tax on net income at 40% or 50%.

8.2.2 Preferred solution is to give wife a sufficient interest in the roof of the building to enable panels to be installed and for her to run the PV business and sell electricity to husband's business / the grid. Increases return compared to above by some 44%; more if tax rate in main business is 50%.

9 **Company Owned (Medium Sized Industrial):**

9.1 Background

9.1.1 Approximate roof size 2 No 10m by 60m (south faces only) with a south facing 10 degree pitch.

9.1.2 Company is not cash rich, but the owners have either personal money or capacity to borrow, their dilemma is how to deal with debt / FITs income/ and sale of power income; and to get the maximum tax benefit from the investment. The bank will allow a lease upon the charged property for the roof only at a peppercorn rent.

9.1.3 The owners have two children, twins, who have just turned 18 and are about to go to university.

9.2 Options include:

9.2.1 Fund with own money as part of business. Tax on net income at corporate rate but further tax costs in extracting funds from the company.

The tax implications of locking into FITs

via solar PV installation

Page 7 of 8

9.2.2 Company grants peppercorn lease on roof to a nominee for itself. The company then enters into a partnership with the owners and their children using the lease as an asset of the partnership which carries out the project. The owners can take some tax allowable borrowing to introduce as capital to the partnership and the income can be split to minimise tax and provide funds for the children through university and to give them an income stream thereafter to help fund a mortgage for a house purchase.

10 **Timber Merchant Ltd (Large Industrial):**

10.1 Background

10.1.1 Approximate roof size 2 No 12m by 200m (south faces only) with a south facing 15 degree pitch.

10.1.2 Timber Merchant is cash rich, but the owners wish to use personal money to make an investment that will come to fruition in 8 to 10 years, their dilemma is how to deal with FITs income; the sale of power income; and to get the maximum tax benefit (in the trading Co if possible) from the investment. The developer will allow a lease upon the roof of the new factory to be separated from the other commercial lease.

10.1.3 The company owners have 4 children who are married with 6 grandchildren and more expected. They wish to help fund the grandchildren through private education.

10.2 Options include:

10.2.1 Fund with own money as part of business. Tax on income initially at corporate rate with extra tax on extracting funds from company before they can be used to gift, with Inheritance Tax risk, cash for school fees.

10.2.2 Set up Newco where company shares are held in trust for benefit of grandchildren (existing and future). The existing company lends funds interest free to Newco. Tax only at the corporate rate and dividends can be paid to grandchildren without a further tax liability to fund school fees.

The tax implications of locking into FITs

via solar PV installation

Page 8 of 8

11 **Overall points to consider**

- 11.1 Are there ancillary repairs or improvements to roof structures required and how should these be most tax efficiently structured ?
- 11.2 How should this project most tax efficiently fit into your existing structure to meet your personal and business objectives (and changes expected to these) over the life of the project ?
- 11.3 Do you need a separate vehicle to produce a balancing allowance at the end of the 25 years and how will loss relief be obtained on the initial excess of allowances and the final balancing allowance ?
- 11.4 Do your existing business and family tax structures need review ?

Illustration 1

Small commercial

Format	Own finance panel only	Pessimistic panel only	Optimistic panel only
Client	Small Commercial	Small Commercial	Small Commercial
Roof size in m2	70	70	70
Cost per watt	£5.00	£6.00	£4.00
kWp per m2	0.1429	0.1429	0.1429
Total cost of PV project	£50,015.00	£60,018.00	£40,012.00
Insolation in kW/m2	900	850	1000
Adjustment for pitch and orientation %	95	90	100
Total projected energy generated kWh	8552.565	7652.295	10003
FITs Tariff	36.1	36.1	48.5
Total FITs revenue	£3,087.48	£2,762.48	£4,851.46
% of energy used by client	50	33	100
Value of energy use by client	£427.63	£176.77	£2,000.60
Current peak rate cost ppu	10	7	20
Total energy exported	£128.29	£153.81	£0.00
Annual system maintenance/insurance	£250	£400	
Total revenue of project	£3,393.39	£2,693.06	£6,852.06
Amount to be funded	£50,015.00	£60,018.00	£40,012.00
Term of loan/payback period	25	10	25
Interest rate	0%	5%	0%
Monthly payment	-£166.72	-£636.58	-£133.37
Annual payment	-£2,000.60	-£7,639.01	-£1,600.48
Total Repayment	-£50,015.00	-£76,390.08	-£40,012.00
Profit during loan term *	£34,819.82	-£49,459.50	£131,289.38
Profit after loan term *	£0.00	£40,395.86	£0.00
Total profit over 25 years *	£34,819.82	-£9,063.64	£131,289.38

*Please note that the initial investment is returned in full to the client before profit is calculated

Illustration 2

Medium Sized Industrial

Format	Own finance panel only	Pessimistic panel only	Optimistic panel only
Client	Medium Industrial	Medium Industrial	Medium Industrial
Roof size in m2	1200	1200	1200
Cost per watt	£3.00	£3.50	£2.60
kWp per m2	0.1429	0.1429	0.1429
Total cost of PV project	£514,440.00	£600,180.00	£445,848.00
Insolation in kW/m2	900	850	1000
Adjustment for pitch and orientation %	95	90	95
Total projected energy generated kWh	146615.4	131182.2	162906
FITs Tariff	29.3	29.3	40
Total FITs revenue	£42,958.31	£38,436.38	£65,162.40
% of energy used by client	33	33	100
Value of energy use by client	£4,838.31	£3,030.31	£32,581.20
Current peak rate cost ppu	10	7	20
Total energy exported	£2,946.97	£2,636.76	£0.00
Annual system maintenance/insurance	£900	£900	£900
Total revenue of project	£49,843.59	£43,203.46	£96,843.60
Amount to be funded	£514,440.00	£600,180.00	£445,848.00
Term of loan/payback period	25	18.5	10
Interest rate	0%	5%	5%
Monthly payment	-£1,714.80	-£4,149.21	-£4,728.91
Annual payment	-£20,577.60	-£49,790.46	-£56,746.92
Total Repayment	-£514,440.00	-£921,123.52	-£567,469.17
Profit during loan term *	£731,649.75	-£121,859.59	£400,966.83
Profit after loan term *	£0.00	£280,822.46	£1,452,654.00
Total profit over 25 years *	£731,649.75	£158,962.87	£1,853,620.83

* Please note that the initial investment is returned in full to the client before profit is calculated

Illustration 3

Large Industrial

Timber Format Client	Own finance panel only TM Large Industrial	Pessimistic panel only TM Large Industrial	Optimistic panel only TM Large Industrial
Roof size in m2	4600	4600	4600
Cost per watt	£3.00	£3.00	£2.50
kWp per m2	0.1429	0.1429	0.1429
Total cost of PV project	£1,972,020.00	£1,972,020.00	£1,643,350.00
Insolation in kW/m2	900	850	1000
Adjustment for pitch and orientation %	95	90	95
Total projected energy generated kWh	562025.7	502865.1	624473
FITs Tariff	29.3	29.3	40
Total FITs revenue	£164,673.53	£147,339.47	£249,789.20
% of energy used by client	33	33	100
Value of energy use by client	£18,546.85	£11,616.18	£124,894.60
Current peak rate cost ppu	10	7	20
Total energy exported	£11,296.72	£10,107.59	£0.00
Annual system maintenance/insurance	£3,500	£3,500	£3,500
Total revenue of project	£191,017.09	£165,563.25	£371,183.80
Amount to be funded	£1,972,020.00	£1,972,020.00	£1,643,350.00
Term of loan/payback period	25	18.5	4.5
Interest rate	0%	5%	0%
Monthly payment	-£6,573.40	-£13,633.10	-£30,432.41
Annual payment	-£78,880.80	-£163,597.23	-£365,188.89
Total Repayment	-£1,972,020.00	-£3,026,548.70	-£1,643,350.00
Profit during loan term *	£2,803,407.37	£36,371.36	£26,977.10
Profit after loan term *	£0.00	£1,076,161.10	£7,609,267.90
Total profit over 25 years *	£2,803,407.37	£1,112,532.47	£7,636,245.00

* Please note that the initial investment is returned in full to the client before profit is calculated