

Revaluation 2017

Utilities Committee

Practice Note 4 Valuation of Conventional Hydro Generators

1.0 Introduction

- 1.1 This Practice Note is to assist with the valuation of conventional hydro electricity generation subjects for the 2017 Revaluation.
- 1.2 This Practice Note provides guidance on the valuation of conventional hydro electricity subjects with a total installed generation capacity of up to 5MW, used to generate electricity where the power generated is mainly or exclusively for distribution for sale to consumers and are in receipt of either Renewable Obligation Certificates (ROCs) or Feed-In Tariffs (FITs) as administered by the Office of Gas and Electricity Markets (Ofgem).
- 1.3 Subjects with a generating capacity of 50 kw or less are defined as micro generation per The Valuation (Plant and Machinery) (Scotland) Amendment Regulations 2008. In terms of this legislation certain items of plant and machinery defined as having “micro generation capacity” are excluded from valuation for rating. Consideration should be given to making an entry in respect of any buildings or other relevant rateable plant and machinery if applicable. Rateable items of plant and machinery should be valued on the Contractor’s Basis with reference to guidance and replacement costs contained in the 2017 SAA/VOA Rating Cost Guide.
- 1.4 This Practice Note is not intended to cover the valuation of hydro pumped storage facilities. Guidance should be sought from Lanarkshire Valuation Joint Board in relation to the valuation of such subjects.

2.0 Basis of Valuation

- 2.1 Subjects are to be valued by reference to the Receipts and Expenditure Method.

This basis of valuation firstly calculates the gross profit by taking the gross receipts less cost of purchases (direct costs). Working expenses (operating costs) are then deducted to give operating profit, then adjusted for depreciation of tenant’s assets to arrive at the divisible balance. The divisible balance represents the amount to be shared between the tenant (tenant’s share - return on capital/risk/profit) and landlord (landlord’s share - the rent payable or the rateable value).

2.2 For sites where full costs and accounts are available it may be appropriate to carry out a full receipts and expenditure valuation rather than applying the model scheme detailed below.

3.0 Valuation Considerations

3.1 Site Accreditation

3.1.1 Financial support has been available to eligible hydro schemes in the form of Renewable Obligation Certificates (ROCs) since 2004 and Feed In Tariffs (FITs) since 1 April 2010.

3.1.2 ROCs were introduced in 2004 and give financial support to qualifying hydro schemes.

3.1.3 FITs, introduced on 1 April 2010, give financial support for qualifying installations generating up to a maximum capacity of 5MW. The amount of support varies depending on the total installed generation capacity and date of accreditation. The FIT tariff is generally set when a scheme receives preliminary accreditation, up to two years before a site is commissioned. If a scheme misses this deadline it falls to be valued on the prevailing FIT tariff at the time of commissioning. Once a FIT tariff has been set it runs with the subject. As FIT tariffs have varied since their introduction - care should be taken ascertaining the correct FIT tariff.

3.2 Total Installed Generating Capacity of the Site

3.2.1 The valuer should establish the Total Installed Generating Capacity of the Site (TIGC) in megawatts (MW) from the operator. As a check this information is also available publicly on the Office of Gas and Electricity Markets (Ofgem) website which lists all accredited stations.

3.3 Output of the site expressed as Megawatt Hours

3.3.1 The volume of trade or business produced by any given site is determined by the output. The unit of measurement is megawatt hours (MWh). Where possible the valuer should seek documentary evidence from a return of information form which will assist in determining the level of MWh the site is likely to generate per annum.

4.0 Valuation

4.1 This valuation firstly requires the calculation of the gross profit.

4.1.1 Gross Receipts

Total income for each site is dependent upon the wholesale electricity price, the scheme to which it is accredited (if it is accredited) and income from Levy Exemption Certificates (LECs) and embedded benefits.

The total income will vary dependent on accreditation and the date of any accreditation.

The table below gives the adjusted income per MWh to be applied to the output to arrive at the total adopted gross receipts.

Accreditation Type		Income per MWh (£)
Unsubsidised		£51.14
ROC Accredited		£87.56
FITs Accredited	Accreditation Date	-
50kW - 100kW	1st April 2010 - 31 March 2014	£262.04
	1st April 2014 - 30 September 2014	£251.54
	1st October 2014 - 31 March 2015	£231.44
	1st April 2015 - 31 March 2016	£211.44
100kW - 500kW	1st April 2010 - 14 March 2013	£181.44
	15 March 2013 - 31 March 2014	£217.84
	1st April 2014 - 30 September 2014	£209.54
	1st October 2014 - 31 March 2015	£193.64
	1st April 2015 - 31 March 2016	£177.84
500kW - 2MW	1st April 2010 - 31 March 2014	£181.44
	1st April 2014 - 30 September 2014	£174.84
	1st October 2014 - 31 March 2015	£162.54
	1st April 2015 - 31 March 2016	£150.14
Over 2MW	1st April 2010 - 30 November 2012	£103.84
	1st December 2012 - 31 March 2013	£99.34
	1st April 2013 - 31 March 2014	£84.84
	1st April 2014 - 30 September 2014	£84.84
	1st October 2014 - 31 March 2015	£81.54
	1st April 2015 - 31 March 2016	£78.14

In general there will be no direct costs as the fuel in this type of generation is free, hence the adopted income (gross receipts), will also be the gross profit.

5.0 Operating profit

5.1 Operating costs are then deducted from gross profit to give operating profit

5.1.1 Operating Costs

Operating costs were ascertained from return of information forms. Costs were analysed and a table of typical running costs for the hypothetical tenant per MW dependent on the size of the station was created. The figures should be interpolated between points.

TIGC (MW)	Operating Cost per MW
0.05	£200,000
0.10	£175,000
0.50	£150,000
1.00	£120,000
2.00	£ 80,000
5.00	£ 80,000

5.2 Depreciation

5.2.1 Depreciation is an allowable deduction, applied only to the tenant's assets, deemed to be 45% of the total costs, in terms of The Valuation of Plant and Machinery (Scotland) Regulations 2000.

5.2.2 It is calculated on a straight line basis over 30 years.

5.2.3 Depreciation on tenant's assets is calculated on the table of capital costs below. The figures should be interpolated between points.

TIGC (MW)	Capital cost per MW
0.05	£6,500,000
0.10	£6,000,000
0.50	£4,900,000
1.00	£3,500,000
2.00	£3,500,000
5.00	£2,500,000

6.0 Divisible Balance

6.1 The tenant's share may be regarded as the first call of the divisible balance. This share has to be sufficient to encourage the tenant to take tenancy of the lands and heritages and to provide an appropriate reward to achieve a profit, an allowance for risk and a return upon their capital.

6.2 To reflect the interest on capital, profit and risk associated in carrying out the undertaking, an addition of 10% has been adopted for subsidised sites. In the case of unsubsidised sites an addition of 15% should be adopted.

- 6.3 The tenant's share of 45%, based on the rateable/non rateable split, is then adjusted to take account of risk. However, when rates payable are deducted (which would normally be deducted as an operating cost) the equivalent percentage is 39.81% in the case of subsidised schemes and 41.97% in the case of unsubsidised schemes. The appropriate percentage should be applied to the divisible balance to arrive at the tenant's share.
- 6.4 Deducting the tenant's share from the divisible balance leaves the income available for rates and for the payment of rent i.e. the landlord's share.

7.0 Net Annual Value/Rateable Value

- 7.1 The remaining income is available for the payment of rent and rates. Rates payment will be stripped out with reference to the rate poundage, as set in the 2015/2016 financial year. The resultant figure is the amount available for rent, this being the Net Annual Value/Rateable Value.