

TENDERS IN CONFIDENCE

JLPEC/P10

PURCHASE OF LASERS FOR THE JOINT LASER CENTRE

Comparison of Tender Prices with Estimates

The estimates for provision of lasers used in the budgets which form the basis of the proposal documents were based on the assumption that the 1.5 TW laser would be a combination of a 100 GW Quantel driver and a GE Disc amplifier, and that the 100 GW system would be supplied by Quantel.

The Budget prices obtained from these two manufacturers were:

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|--------------------------|-----------------|---------------|
| a) Quantel 100 GW system | £150K (FF.504M) | October 1974 |
| b) GE Disc amplifier | £956K (\$2.2M) | November 1974 |

The Quantel System was not fully isolated against retro reflection so a allowance of £10K was made to include this in the 100 GW stand alone system. The GE price did not include support tables, an allowance of £50K was made for this by taking typical manufacturers' catalogue prices for optical tables. Hence the budget line for lasers was

i) GE Disc amplifier	£.956M
ii) Quantel Driver	£.150M
iii) Support tables	£.05 M
iv) 100 GW laser	£.160M
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	£1.316M

net of VAT

These prices are to be compared with the current firm quotations:

i) GE Disc amplifier	£1.244M
ii) Quantel Driver	£ .222M
iii) GE supports	£ .009M
iv) 100 GW Laser	£ .200M
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	£1.675M

net of VAT

The differences that in part account for the increased cost between estimates and tenders have been examined.

1.	<u>GE Disc Amplifier</u>	<u>Cost £000</u>
1)	No installation cost was included in the first GE price, only cost of experts' supervision was included	62
2)	Present Quantel/GE combined system has one surplus Faraday rotator	20

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	<u>Cost £000</u>
3) GE special tools and equipment line in tender is covered in the diagnostic 'shopping list'	26
4) GE price now includes full system console	13
5) Budget price was FOB, Syracuse, present price includes delivery	26
6) GE inform us that supplier has increased cost of Faraday rotators by	26
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	173
Apply US inflation for 6 months (JLPEC 11) 8%	76
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	£249K
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Unresolved difference between Budget and tender prices ~ £40K.

2. Two Quantel ~ 100 GW systems

Budget price £310K. Tender price £422K. Difference £112K. Quantel price is firm to October 1975. Escalation due to inflation ~ 15% = £47K. The extra Faraday rotator requires compensating increase in gain requiring ~ 15% more stored energy = £30K.

Unresolved difference between Budget and Tender price £35K.

3. Our estimate for supports assumed optical tables, GE proposed mild steel stands.

From these considerations, it is now estimated the cost of the laser installation is likely to be £1.675 - .050

~ £1.62M

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13 June 1975