

TS/CF  
(A.) 6

## Cash Flow Analysis – prepared by Contractor

- With name of project, assumptions: payment terms
- Reference to Bar Chart Programme
- comprises income (receipts) and expenditure (expenditure)
- for Contractor's top management/ shareholders' decisions:
  - a) whether to proceed with the tender submission or not
  - b) tender strategy
  - c) consider interest on receipts and expenditure, which could affect the financial status of a Main Contractor
- Timeline:
  - o From contract commencement
  - o To DLP (to show effect of the release of retention)
- **PHASING**: the percentage of work done in each month could be estimated based on the Contractor's construction programme prepared by planning engineers
- Income (cost + mark up percentage) and Expenditure of each cost centres/ Bill can be added to get totals for each main activity in the bar chart programme

financial charge

## Expenditure

### - Direct cost

#### Staff and labour

- From commencement to completion
- Payment issued to labour and staff in the same month as the project activity

#### Others

- Such as consumables, fees etc.
- Payment delayed for 1 month (assumed)

oil/fuel

#### Risk

- For project with high risk

fluctuation  
(LD, Key Perf Indicator)

完工标志 → 支付 Payment

environmental  
quality  
safety

### - Indirect cost

#### Payment for DSCs (assumed 80%)

- payment delayed for 1 month or 2 months, depending on the company policy when the payment should be paid.

#### Payment for suppliers (20%)

- for materials
- payment most probably delayed for 2 months

Payment for NSCs – payment delayed for 2 months (usually pay after 14 days upon receipt of Arch's Cert)

An "Adjustment" row could be added for adjusting minor discrepancies.

### - Retentions

- o Retention deducted in each payment received until the limit
- o 50% released at PCC
- o 50% released on DLP
- o applied to s/c

Receipt (Expenditure?)

Income (Receipts)

- profit added
- assume an honouring period
- preliminaries – could be divided in staff & labour and others as expenditure
- Works (e.g. cost centers B – in Disney contract)

Payment receipts are usually delayed for 2 months, subject to the actual honouring period stated in the Contract

Retentions

- o Retention deducted in each payment received until the limit
- o 50% released at PCC
- o 50% released on DLP

- Down payment/ payment through first few milestones maybe possible for upfront payment

Profit margin could be placed at the end of spreadsheet for easy checking

- KPI for Disney Contract (5%) deduction and released every 3 months according to KPI Score

Cumulative cash should be S-shaped

- Try to make all cash flow positive if possible

- Lag Time

- Retention

- DLP

- S-curve

- Terms of Payment

- ☐ **Positive cash flow is the money inflow**
- ☐ **Negative cash flow is the money outflow**
- ☐ **Net cash flow** = (Difference between inflow and outflow cash) (Cash surplus (+) can help self-financing, cash deficit (-) need funding)

## 2. Example of positive cash flow (Inflow)

- on Employer's side  
→ Outflow
- ☐ **Interim payment**
  - ☐ **Retention (release)**
  - ☐ **Final accounts**
  - ☐ **Loans of assets, e.g. stock, land, plants, etc**
  - ☐ **Claim**
  - ☐ **Front-end loading**
  - ☐ **Pay when pay**
  - ☐ **Set-off to sub-contractor**
- (on the contractor's side)

## 3. Example of negative cash flow (Outflow)

- on Employer's side  
→ Inflow
- ☐ **Payment to sub-contractors and suppliers**
  - ☐ **Overhead expenditure**
  - ☐ **Direct and indirect cost**
  - ☐ **Wages**
  - ☐ **Rent**
  - ☐ **Taxes**
  - ☐ **Loan payment**
  - ☐ **Liquidated damages**
  - ☐ **Set-off from employer**
- (on the contractor's side)

## 4. Function of cash flow

- ☐ Cash flow forecast can give early indication of cash conditions
- ☐ It can give time to assess and arrange borrowing
- ☐ Adjust programmes of work to equalize borrowing and avoid peak demand
- ☐ Implement credit control and monitor outstanding monies due
- ☐ Reduce or increase expenditure

## 5. The contractor's cash flow curve

- ☐ The difference between the expense curve and the expected income profile defines the **planned working capital for the project**
- ☐ The maximum working capital is the maximum cash expected to be required by the contractor to run the project
- ☐ The total area between the above curves will give a good indication of the expected cost of financing the project

## 6. Factors affecting contractor cash flow

- ☐ **The duration of the project**
- ☐ **Profit margin of the project**
- ☐ **Employer's reputation**
- ☐ **Progress delay**
- ☐ **Investment**
- ☐ **Increase in cost of works by fluctuation**
- ☐ **The retention conditions**
- ☐ **The delay in receiving payment from client**
- ☐ **The credit arrangements with suppliers, plant hirers and subcontractors**
- ☐ **The phasing of the projects in the company's workload**
- ☐ **The late settlement of outstanding claim and final account**

Cash Flow