



MOU

2006-2007

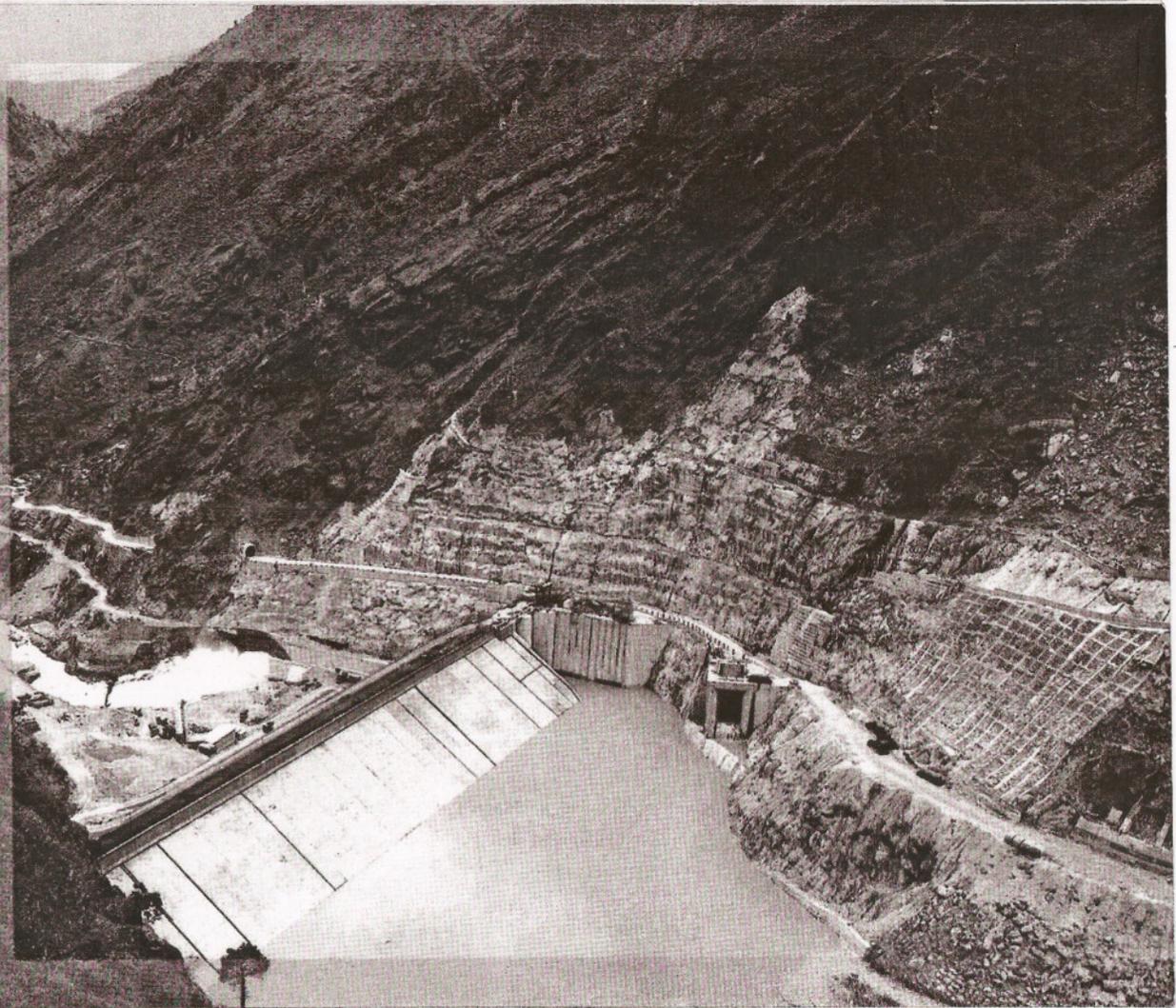
MEMORANDUM OF
UNDERSTANDING

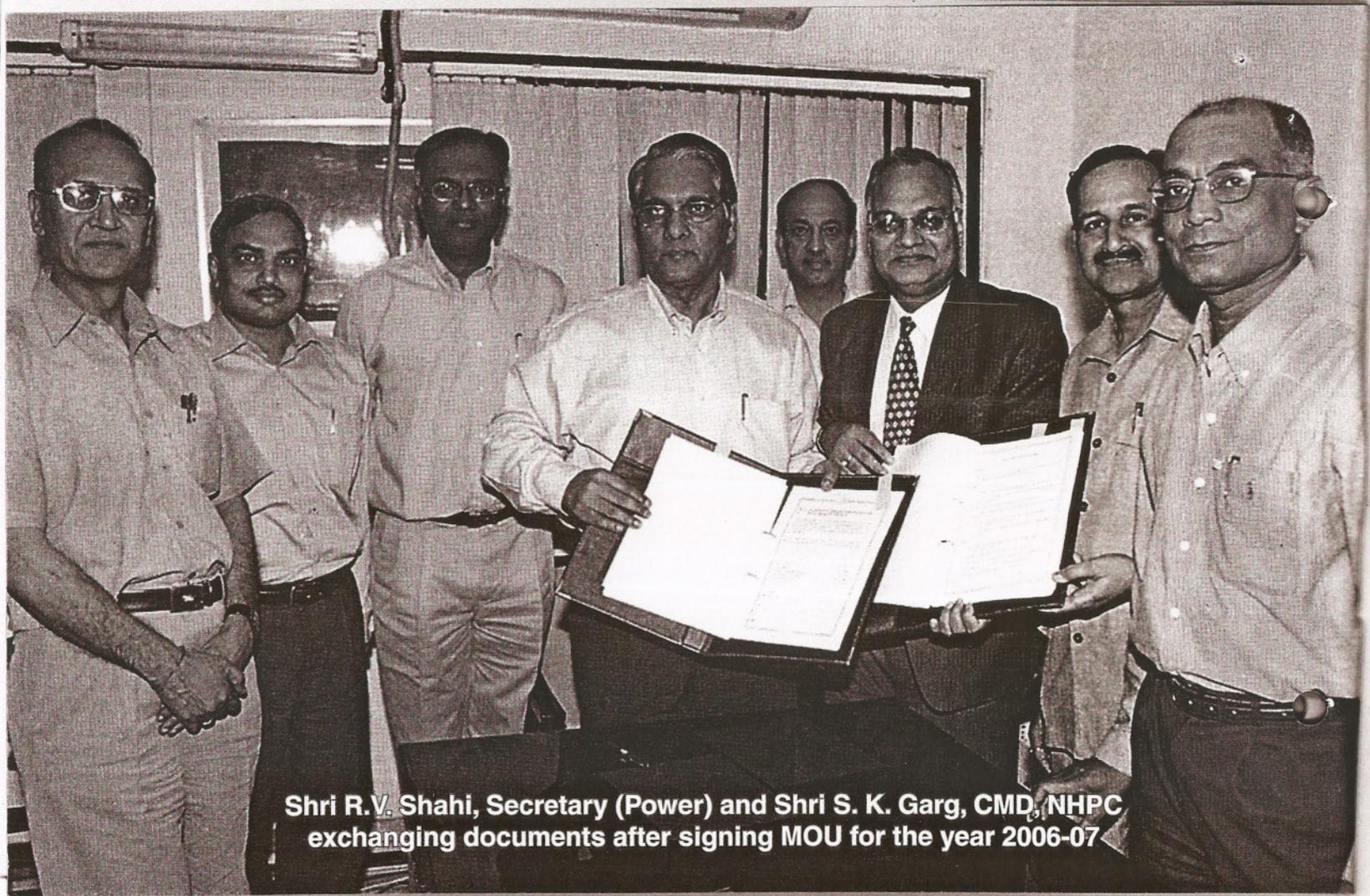
Between

Ministry of Power
Government of India

and

National Hydroelectric Power
Corporation Ltd.

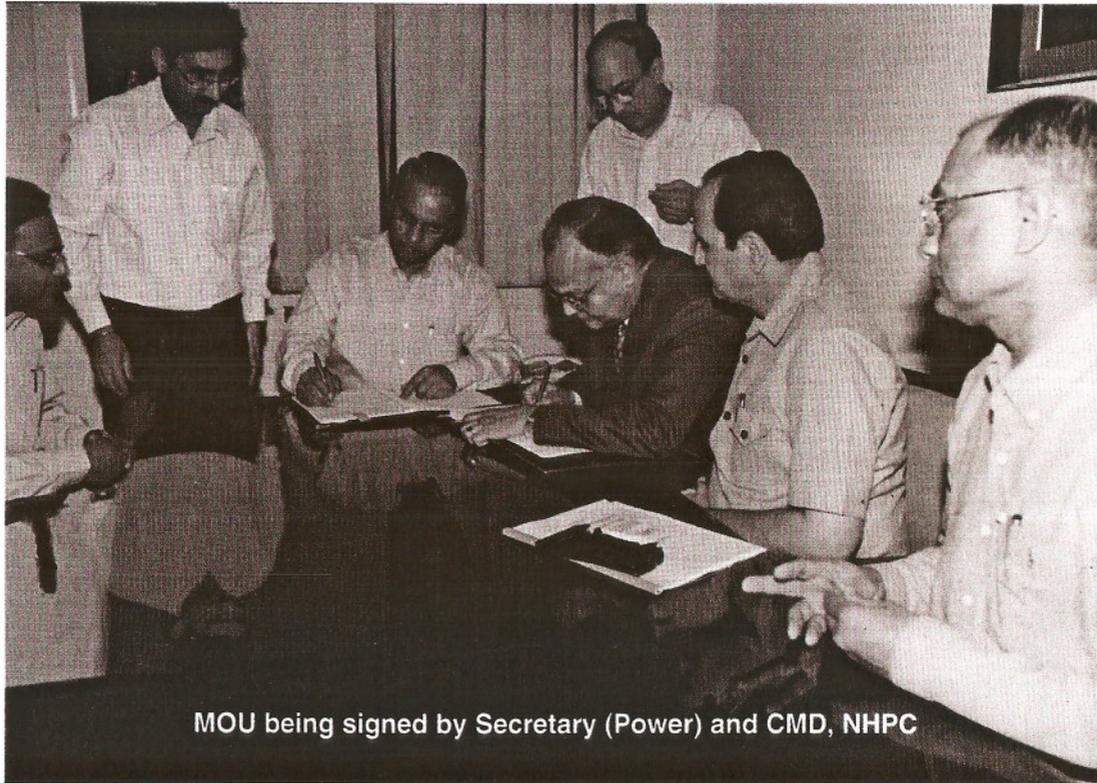




**Shri R.V. Shahi, Secretary (Power) and Shri S. K. Garg, CMD, NHPC
exchanging documents after signing MOU for the year 2006-07**

MEMORANDUM OF UNDERSTANDING
between
MINISTRY OF POWER
Government of India
and
NATIONAL HYDROELECTRIC POWER CORPORATION LIMITED
for
(2006-2007)

- Part I** : Mission/Vision and Objectives
- Part II** : Exercise of enhanced Autonomy and Delegation of Financial Powers
- Part III** : Performance Evaluation Parameters and Targets
- Part IV** : Commitments/Assistance from the Government
- Part V** : Action Plan for implementation and monitoring of the MOU



MOU being signed by Secretary (Power) and CMD, NHPC

Part I : MISSION / VISION AND OBJECTIVES

Vision

A world class, diversified & transnational organization for sustainable development of hydro power and water resources with strong environment conscience.

Mission

- To achieve international standards of excellence in all aspects of hydro power and diversified business.
- To execute and operate projects in a cost effective, environment friendly and socio-economically responsive manner.
- To foster competent, trained and multi-disciplinary human capital.
- To continually develop state-of-the-art technologies through innovative R&D and adopt best practices.
- To adopt the best practices of corporate governance and institutionalize value based management for a strong corporate identity.
- To maximize creation of wealth through generation of internal funds and effective management of resources.

Objectives

- Development of vast hydro potential at faster pace and optimum cost eliminating time and cost over-run.
- Completion of all-on going projects within stipulated time frame.



- Ensure maximum utilisation of installed capacity and help in better system stability.
- Generation of sufficient internal resources for expansion and setting up new projects.
- Corporate development alongwith simultaneous human resource development.

Part-II: EXERCISE OF ENHANCED AUTONOMY AND DELEGATION OF FINANCIAL POWERS

Enhanced delegation of powers given to MOU signing companies including those which may be extended to such companies during 2006-2007 shall be exercisable by NHPC.

Part-III : PERFORMANCE EVALUATION PARAMETERS AND TARGETS
Performance Parameters & Their Weightages (Year 2006-2007)

| SI.No. | Performance Indicator | Unit | Wt. | Performance Rating | | | | | BE 2005-06 | BE 2006-07 |
|--------------|---|-------------------|-----|--------------------|---------|---------|---------|---------|------------|------------|
| | | | | 1 | 2 | 3 | 4 | 5 | PSE | PSE |
| Part-A I) | Static Financial Parameters | | | | | | | | | |
| (a) | Financial Performance Indicator | | | | | | | | | |
| i) | Gross Margin / Gross Block | % | 2% | 11.39 | 11.03 | 10.80 | 10.61 | 10.43 | 8.10 | 10.80 |
| ii) | Net Profit / Net Worth* | % | 10% | 7.26 | 6.75 | 6.43 | 6.16 | 5.90 | 3.11 | 6.43 |
| iii) | Gross Profit / Capital Employed | % | 10% | 7.25 | 6.85 | 6.57 | 6.34 | 6.12 | 4.76 | 6.57 |
| (b) | Financial indicator – Size | | | | | | | | | |
| i) | Gross Margin | Rs. Cr. | 8% | 1892.56 | 1833.04 | 1794.76 | 1763.76 | 1733.70 | 1338.50 | 1794.76 |
| ii) | Gross sales | Rs. Cr. | 4% | 2117.72 | 2057.83 | 2019.27 | 1988.05 | 1957.77 | 1610.09 | 2019.27 |
| (c) | Financial returns-Labour productivity & Total Factor Productivity | | | | | | | | | |
| i) | PBDIT / Total Employment* | Rs. Lacs / Capita | 7% | 33.01 | 31.97 | 31.30 | 30.76 | 30.24 | 22.71 | 31.30 |
| ii) | Added Value / Gross sales | % | 9% | 23.25 | 20.36 | 18.19 | 16.28 | 14.38 | -7.72 | 18.19 |
| II) | Dynamic Parameters | | | | | | | | | |
| i) | Quality Certification | | | | | | | | | |
| a) | ISO 9001 :2000 | No. of locations | 1% | 3 | 2 | 1 | - | - | 2 | 1 |
| b) | ISO 14001:2004 | locations | 1% | 3 | 2 | 1 | - | - | 1 | 1 |



| Sl.No. | Performance Indicator | Unit | Wt. | Performance Rating | | | | | BE 2005-06 | BE 2006-07 |
|--------|--|---------------|------|-----------------------------------|--------|-------|-------|-------|------------|------------|
| | | | | 1 | 2 | 3 | 4 | 5 | PSE | PSE |
| ii) | HRD | | | | | | | | | |
| a) | % of manpower to be trained | % | 0.5% | 60 | 45 | 40 | 35 | 30 | 20 | 40 |
| b) | % investment of gross salary towards training and HRD activity | % | 0.5% | 2 | 1.8 | 1.6 | 1.4 | 1.2 | 1.5 | 1.6 |
| iii) | R&D Activities | Nos. | 2% | Details as per Annex.-I attached | | | | | | |
| iv) | Energy Audit | Nos. | 2% | | | | | | | |
| v) | Projects implementation | Nos. | 28% | Details as per Annex.-II attached | | | | | | |
| vi) | Preparation of DPR | Nos. | 2% | 5 | 4 | 3 | 2 | 1 | 8 | 3 |
| vii) | Consultancy Assignments | Rs. in crores | 1% | 20 | 18 | 16 | 14 | 12 | 16 | 16 |
| viii) | Award of Contract for ERP Software and Implementation | | 1% | Feb 07 | Mar 07 | - | - | - | - | Mar 07 |
| PART-B | | | | | | | | | | |
| i. | Specific Parameters | | | | | | | | | |
| 1. | Generation** | MU | 2% | 13860 | 13200 | 12540 | 11913 | 11317 | 11726 | 12540 |
| 2. | Capacity Index | % | 8% | 96.5 | 94.8 | 92.0 | 89.2 | 86.5 | 91.2 | 92.0 |
| 3. | Recovery of Current dues | % | 1% | 97 | 95 | 93 | 91 | 89 | 92 | 93 |
| | | | 100% | | | | | | | |

Part-III : PERFORMANCE EVALUATION PARAMETERS AND TARGETS

| | | | |
|--------------|-----------------------|------------------------|-----------------------|
| Gross Profit | : Rs. 1171.78 Crores | Net profit (after tax) | : Rs. 660.40 Crores |
| Net Worth | : Rs. 10277.86 Crores | Capital Employed | : Rs. 17842.73 Crores |

(The generation targets are subject to availability of estimated water inflow and there being no load/transmission constraints. For the purpose of evaluation therefore, the loss in generation due to such factors will be reduced from the performance rating targets. Achievement of milestone targets during 2006-2007 in execution of projects shall be subject to timely availability of funds, statutory clearances & Govt. sanction and non-occurrence of extra-ordinary conditions like law & order problems, flood etc.).

- * Excludes advance against depreciation and self insurance for contingencies in the net worth of the corporation.
- ** Generation Targets are subject to revision with due approval of ATF in the mid of Financial Year in case the climatic condition are not favourable to the above generation targets if requested by PSU.
- *** At present Corporation is following the policy of charging depreciation at rates prescribed by CERC only. The policy is under review at MOP. Impact of any change in the depreciation policy, at later stage, will be suitably accounted for in MOU financial parameters.
- **** Target of preparation of DPR is subject to availability of statutory clearances

| | | |
|----|---|------------|
| 1. | Timely submission of draft MOU for 2007-08 after due discussion with Admin. Ministry/Deptt . | 30.11.2006 |
| 2. | Timely submission of Performance Evaluation Report (composite score) for 2005-2006 on the basis of the provisional data with adjustments, if any, through administrative Ministries/ Departments with proper justification. | 30.04.2006 |
| 3. | Timely signing of MOU for 2006-07 | 31.03.2006 |
| 4. | Timely submission of Performance Evaluation Report (Composite score) for the year 2005-06 on the basis of Audited data. | 15.10.2006 |
| 5. | The data for compilation of Public Enterprise Survey 2005-06 including flash results for six months ending 30.9.2006 | 15.10.2006 |



Part-IV : COMMITMENTS/ASSISTANCE FROM THE GOVERNMENT

The areas where NHPC expects the Govt. to provide assistance are:

1. Securitisation of outstanding amount of Rs. 187.68 Cr. (Rs. 120.81 Cr. – Principal and Rs. 66.87 Cr. Surcharge after 60% of waiver) of DESU period and issuance of bonds/long-term advances in favour of NHPC.
2. To consider projects being executed and proposed for execution by NHPC for multilateral and bilateral financial assistance.
3. To help in acquisition of land for approved hydro projects.
4. To provide requisite equity support for execution of on-going schemes and to take up new schemes.
5. To assist in obtaining various statutory clearances including Environmental and Forest clearance from MOEF, as per statutory requirement and for resolving important issues pertaining to Environment and Forest, for timely accord of site clearance Stage-I&II, Environment and Forest clearance from MOEF.
6. To impress upon State Govt. of Himachal Pradesh not to insist upon for obtaining consent to establish and consent to operate for hydro projects located in H.P.
7. To impress upon State Govt. of Himachal Pradesh not to insist upon for release of minimum flow downstream of dam / diversion structure in accordance with notification issued by Himachal Pradesh Govt. dated 16.7.05 and 9.9.05.
8. For getting TAC/TEC from CEA/CWC for Siyom Project.
9. To impress upon State Govt. for submission of proposal for forest clearance by State Govt. of Arunachal Pradesh to MOEF.
10. To resolve issues of State Govt. of Arunachal Pradesh and Assam for signing of MOU
11. To resolve issue of provision of flood moderation in hydro project with the State Government of Arunachal Pradesh and Assam.
12. To help in obtaining Mini-Ratna status as a first step towards achieving Navratna Status.

Part-V : ACTION PLAN FOR IMPLEMENTATION AND MONITORING OF THE MOU

- The performance of the Corporation in respect of generation, execution of ongoing projects and financial aspects including budget utilisation & revenue realisation is presented to MOP in monthly reports. The review of performance of the Corporation is carried out by Ministry from time to time and by Secretary (Power) at regular intervals.

The provisional evaluation of performance will be done in the month of April, 2007 and the final evaluation in October, 2007 on completion of Audited Accounts.



(S.K. Garg)
Chairman & Managing Director
National Hydroelectric Power
Corporation Limited

New Delhi
28th March, 2006



(R.V. Shahi)
Secretary
Ministry of Power
Govt. of India

Annex.-I

**RESEARCH & DEVELOPMENT AND ENERGY AUDIT
Performance Parameters & Their Weightages (Year 2006-2007)**

| Sl.No. | Performance Indicator | Unit | Wt. | Performance Rating | | | | | BE 2005-06 | BE 2006-07 |
|--------|--|---------------------|-----|--------------------|--------|--------|--------|---|------------|------------|
| | | | | 1 | 2 | 3 | 4 | 5 | PSE | PSE |
| | R&D Activities | | | | | | | | | |
| 1. | Approval of designated National Authority for CDM benefits | Nimoo Bazgo/ Chutak | 2% | Dec,06 | Jan,07 | Feb,07 | Mar,07 | - | - | Feb,07 |
| 2. | Energy Audit of Generating Units | | | | | | | | | |
| (i) | Loktak Power Station | No. of Units | 1% | 3 | 2 | 1 | - | - | - | 1 |
| (ii) | Tanakpur Power Station | No. of Units | 1% | 3 | 2 | 1 | - | - | - | 1 |

MILESTONES - 2006-07

| Sl. No. | Activity | Weights | CRITERIA VALUE | | | | | |
|---------|---|---------|----------------|-----------|------------|-----------|-----------|--|
| | | | Excellent | Very Good | Good | Fair | Poor | |
| A. | TEESTA H.E. PROJECT (St-V) -510 MW | | | | | | | |
| 1 | Complete erection of all radial gates | 1% | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | - | |
| 2 | HRT Completion | 1% | Nov. 2006 | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 | |
| 3 | Lower Surge Gallery Completion | 1% | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | |
| 4 | Commissioning of 1st Unit | 1% | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | - | |
| B. | PARBATI H.E. PROJECT (Stage-II) - 800 MW | | | | | | | |
| 1 | Dam concreting (80,000 cum) | 1% | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | - | |
| 2 | Complete Excavation of HRT Face-I | 1% | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | |
| 3 | Excavation of HRT, Face-4 by TBM upto RD 4800 m | 1% | Oct. 2006 | Nov. 2006 | Dec. 2006 | Jan. 2007 | Feb. 2007 | |
| 4 | Complete excavtion of inclined Pr. Shaft | 1% | Nov. 2006 | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 | |
| C. | SUBANSIRI LOWER H.E. PROJECT -2000 MW | | | | | | | |
| 1 | Daylighting of Diversion Tunnel | 1% | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | |
| 2 | Completion of Power House Excavation | 1% | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | |
| 3 | Start of HRT Excavation | 1% | Jul. 2006 | Aug. 2006 | Sept. 2006 | Oct. 2006 | Nov. 2006 | |
| 4 | Start of Power House concreting Unit 1 | 1% | Sept. 2006 | Oct. 2006 | Nov. 2006 | Dec. 2006 | Jan. 2007 | |



| Sl. No. | Activity | Weights | CRITERIA VALUE | | | | |
|---------|---|---------|----------------|------------|-----------|------------|------------|
| | | | Excellent | Very Good | Good | Fair | Poor |
| D. | SEWA H.E. PROJECT (Stage-II) -120 MW | | | | | | |
| 1 | Complete excavation of vertical pressure shaft | 1% | Jun. 2006 | Jul. 2006 | Aug. 2006 | Sept. 2006 | Oct. 2006 |
| 2 | Concreting of Dam upto Spillway crest level (EL 1168 m) | 1% | Aug. 2006 | Sept. 2006 | Oct. 2006 | Nov. 2006 | Dec. 2006 |
| 3 | Erection of Generator of Unit-1 | 1% | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | - |
| E. | TEESTA LOW DAM H.E. PROJECT (St-III) - 132 MW | | | | | | |
| 1 | Complete excavation of Barrage (Block III to VII) | 1% | May 2006 | Jun. 2006 | Jul. 2006 | Aug. 2006 | Sept. 2006 |
| 2 | Completion of concreting of Intake | 1% | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 | - |
| 3 | Concreting in cellular wall (40,000 cum) | 1% | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | - |
| F. | URI H.E. PROJECT (St-II) - 240 MW | | | | | | |
| 1 | River Diversion | 1% | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 | - |
| G. | CHAMERA H.E. PROJECT (St-III) - 231 MW | | | | | | |
| 1 | Diversion Tunnel works completion | 1% | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | - |
| H. | PARBATI H.E. PROJECT (St-III) - 520 MW | | | | | | |
| 1 | Diversion Tunnel works completion | 1% | Feb. 2007 | Mar. 2007 | - | - | - |
| I. | TEESTA LOW DAM H.E. PROJECT (St-IV) - 160 MW | | | | | | |
| 1 | River diversion - 1st Phase | 1% | Nov. 2006 | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 |

| Sl. No. | Activity | Weights | CRITERIA VALUE | | | | |
|---------|---|---------|----------------|-----------|-----------|------------|------------|
| | | | Excellent | Very Good | Good | Fair | Poor |
| J. | DULHASTI H.E. PROJECT - 390 MW | | | | | | |
| | 1 Completion of HRT Lining | 1% | May 2006 | Jun. 2006 | Jul. 2006 | Aug, 2006 | Sept. 2006 |
| | 2 Plugging of Adits | 1% | Jun. 2006 | Jul. 2006 | Aug, 2006 | Sept. 2006 | Oct. 2006 |
| 3 | Commissioning of 1st unit | 1% | Jun. 2006 | Jul. 2006 | Aug, 2006 | Sept. 2006 | Oct. 2006 |
| K. | NARMADA HYDROELECTRIC DEVELOPMENT CORPORATION LIMITED | | | | | | |
| | OMKARESHWAR H.E. PROJECT - 520 MW | | | | | | |
| | 1 Erection of Radial Gates 7 nos. | 1% | Jun. 2006 | Jul. 2006 | Aug, 2006 | Sept. 2006 | Oct. 2006 |
| | 2 Second Stage concreting for 6 units around Spiral casing, Generator barrel & Generator floor upto EL 170.29 m | 1% | Nov. 2006 | Dec. 2006 | Jan. 2007 | Feb. 2007 | Mar. 2007 |
| 3 | Complete Generator assembly for units 1 & 2 | 1% | Jan. 2007 | Feb. 2007 | Mar. 2007 | - | - |



PERFORMANCE FOR THE LAST 5 YEARS

| Sl. No. | Parameters | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 (Target) | 2006-07 (Target) |
|---------|---|---------|---------|----------|----------|------------------|------------------|
| I. | Part-A Static Financial Parameters | | | | | | |
| (a) | Financial Performance indicators | | | | | | |
| (i) | Gross Margin/Gross Block (%) | 17.08 | 15.77 | 16.67 | 16.08 | 8.10 | 10.80 |
| (ii) | Net Profit /Net Worth (%) | 8.14 | 7.97 | 8.10 | 8.17 | 3.11 | 6.43 |
| (iii) | Gross Profit/Capital Employed (%) | 10.23 | 9.77 | 11.38 | 10.88 | 4.76 | 6.57 |
| (b) | Financial indicators - Size | | | | | | |
| (i). | Gross Margin (Rs.in crores) | 1316.66 | 1225.90 | 1615.71 | 1569.92 | 1338.50 | 1794.76 |
| (ii) | Gross Sales (Rs.in crores) | 1349.63 | 1324.90 | 1414.43 | 1581.73 | 1610.09 | 2019.27 |
| (c) | Financial returns-Labour productivity and Total Factor productivity | | | | | | |
| (i) | PBDIT/Total Employment (Rs. in Lacs/capita) | -- | -- | -- | 34.79 | 22.71 | 31.30 |
| (ii) | Added Value / Gross Sales (%) | 42.35 | 34.87 | 51.13 | 43.94 | -7.72 | 18.19 |
| II. | Dynamic Parameters | | | | | | |
| 1. | Recovery of Current Dues (%) | 80 | 93.63 | 97.06 | 101.29 | 92 | 93 |
| 2. | HRD Programme (mandays) | 24294 | 25387 | * | | | |
| 3. | HRD Programme % of manpower Trained (%) | --- | --- | 47.03 | 49.5 | 20 | 40 |
| 4. | % investment of gross salary towards training & HRD activities | --- | --- | --- | --- | 1.5 | 1.6 |
| | Part-B Specific Parameters | | | | | | |
| 1 | Capacity Index (%) | 96.86 | 96.62 | 97.55 | 95.3 | 91.2 | 92 |
| 2 | Generation (MU) | 8912.29 | 9862.71 | 10859.28 | 11286.43 | 11726 | 12540 |

* Parameter changed to percentage of workforce trained.

PROJECTED PERFORMANCE FOR THE NEXT 5 YEAR FOR MAJOR HEADS

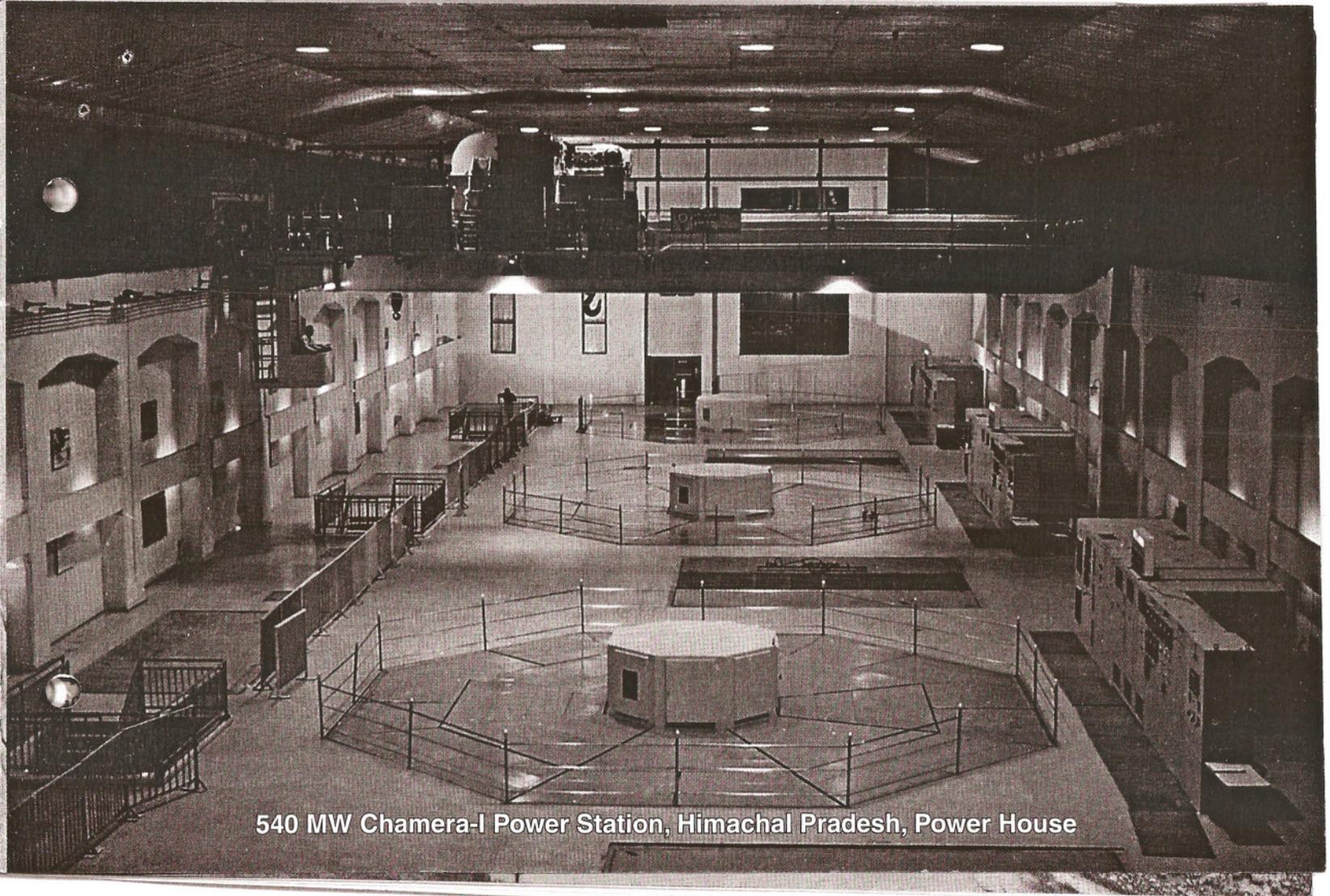
| Sl. No. | Parameters | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|---------|--|---------|---------|---------|---------|---------|
| I. | Part-A Static Financial Parameters | | | | | |
| (a) | Financial Performance indicators | | | | | |
| (i) | Gross Margin/Gross Block (%) | 11.96 | 13.57 | 12.47 | 11.98 | 13.63 |
| (ii) | Net Profit/Net Worth (%) | 9.40 | 9.49 | 8.91 | 7.78 | 8.18 |
| (iii) | Gross Profit/Capital Employed (%) | 8.49 | 9.37 | 8.67 | 7.94 | 9.09 |
| (b) | Financial indicators - Size | | | | | |
| (i) | Gross Margin (Rs.in crores) | 2826.93 | 3311.20 | 3464.14 | 4598.62 | 5231.67 |
| (ii) | Gross Sales (Rs.in crores) | 3185.63 | 3770.56 | 3998.90 | 5291.24 | 6074.30 |
| (c) | Financial returns-Labour productivity and Total Factor productivity | | | | | |
| (i) | Added Value/Gross Sales (%) | 27.67 | 35.11 | 30.70 | 29.20 | 36.35 |
| II. | Dynamic Parameters | | | | | |
| (a) | Recovery of Current Dues (%) | 97 | 97 | 97 | 97 | 97 |
| (b) | HRD Programme % of Workforce to be Trained | 55 | 60 | 65 | 75 | 85 |
| (c) | % investment of gross salary towards training and HRD activity | 2.1 | 2.6 | 2.9 | 3.6 | 4.6 |
| | Part-B Specific Parameters | | | | | |
| 1. | Capacity Index (%) | 91.57 | 92.90 | 94.04 | 91.33 | 92.27 |
| 2. | Generation (MU) | 17242 | 20554 | 21122 | 25534 | 33357 |



Annex-IV

COST & TIME ESTIMATES

| Sl. No. | Name of Project | Original Sanctioned Cost (Rs. in crs) | Revised Cost (Rs. in crs) | Original Comm. Schedule | Revised Comm. Schedule |
|---------|----------------------|---------------------------------------|---------------------------|-------------------------|------------------------|
| 1. | Dulhasti | 183.45 (3/80) | 4924.55 (8/05) | 1990 | Aug. 06 |
| 2. | Teesta - V | 2198.04 (4/99) | ---- | Feb.07 | ---- |
| 3. | Parbati-II | 3919.59 (12/01) | ---- | Sept.09 | ---- |
| 4. | Subansiri Lower | 6285.33 (12/02) | ---- | Sept.10 | ---- |
| 5. | Sewa - II | 665.46 (9/02) | ---- | Sept.07 | ---- |
| 6. | Teesta Low Dam - III | 768.92 (12/02) | ---- | Mar.07 | Mar.08 |
| 7. | Omkareshwar | 2041.93 (11/02) | ---- | Feb.08 | Oct.07 (Contract) |
| 8. | Uri-II | 1724.79 (02/05) | ---- | Nov.09 | ---- |
| 9. | Chamera-III | 1405.63 (02/05) | ---- | Aug.10 | ---- |
| 10. | Teesta Low Dam-IV | 1061.38 (03/05) | ---- | Aug.09 | ---- |
| 11. | Parbati-III | 2304.55 (05/05) | ---- | Sept.10 | ---- |



540 MW Chamera-I Power Station, Himachal Pradesh, Power House

Corporate Vision

A world class, diversified & transnational organization for sustainable development of hydro power and water resources with strong environment conscience.

Corporate Mission

- ❖ To achieve international standards of excellence in all aspects of hydro power and diversified business.
- ❖ To execute and operate projects in a cost effective, environment friendly and socio-economically responsive manner.
- ❖ To foster competent, trained and multi-disciplinary human capital.
- ❖ To continually develop state-of-the-art technologies through innovative R&D and adopt best practices.
- ❖ To adopt the best practices of corporate governance and institutionalize value based management for a strong corporate identity.
- ❖ To maximize creation of wealth through generation of internal funds and effective management of resources.



National Hydroelectric Power Corporation Ltd.

(A Government of India Enterprise)

NHPC Office Complex, Sector - 33, Faridabad (Haryana) - 121003

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