

# **Monitoring Report**

**of**

## **Hapugastenne and Hulu Ganga Small Hydropower Projects**

**CDM Registration Number: 0085**

**Reporting Period: 1 January 2003 to 31 December 2005**

**Prepared by:**  
**Eco Power (Private) Limited**  
**21 Gower Street, Colombo 5, Sri Lanka**

## MONITORING REPORT HULU GANGA AND HAPUGASTENNE PDD

Prepared by: Eco Power (Private) Limited  
21 Gower Street, Colombo 5, Sri Lanka

Dr. Romesh Dias Bandanaike  
Chief Executive Officer  
Feb. 1, 2006



### HAPUGASTENNE PHASE I AND II PLANTS

#### Note

1. The Hapugastenne Phase I and II plants have the same civil works.
2. The Phase I plant consist of 2 sets of identical turbines/generators and related equipment
3. The Phase II plant (which was commissioned one year later) consists of 1 set of the same turbines/generators as the Phase I plant plus related equipment.
4. The CEB measures the output of the two plants seperately using two separate meti
5. In practice the 2 plants are operated as a single entity.

#### ELECTRICITY OUTPUT

Month	HAPUGASTENNA PHASE I		HAPUGASTENNA PHASE II	
	Electricity Output (kWh)	Source (Invoice Nos raised for CEB)	Electricity Output (kWh)	Source (Invoice Nos raised for CEB)
<b>2003</b>				
January	586,590	281	1,598,770	305
February	438,800	282	1,484,840	306
March	1,315,380	283	472,870	307
April	1,207,110	284	1,360,870	308
May	1,840,850	285	1,268,940	309
June	744,000	401	1,449,560	426
July	2,061,570	402	1,840,440	427
August	2,010,570	403	1,636,680	428
September	2,189,210	404	1,415,530	429
October	1,792,300	430	1,406,320	405
November	1,789,750	406	1,470,520	431
December	476,460	407	1,233,560	432
<b>Total for 2003</b>	<b>16,452,590</b>		<b>16,638,900</b>	

Month	HAPUGASTENNA PHASE I		HAPUGASTENNA PHASE II	
	Electricity Output (kWh)	Source (Invoice Nos raised for CEB)	Electricity Output (kWh)	Source (Invoice Nos raised for CEB)
<b>2004</b>				
January	1,101,280	408	638,340	433
February	599,500	409	1,356,500	434
March	215,000	410	1,073,900	435
April	2,202,210	411	1,675,600	436
May	2,831,750	437	1,947,540	412
June	2,698,730	413	1,906,630	438
July	1,876,370	414	1,519,600	439
August	1,036,720	415	2,907,890	441
September	2,593,600	418	1,557,000	442
October	2,754,530	419	1,614,150	443
November	1,710,160	420	1,597,830	444
December	899,300	421	1,785,180	577
<b>Total for 2004</b>	<b>20,519,150</b>		<b>19,580,160</b>	
<b>2005</b>				
January	344,010	422	1,471,470	578
February	513,900	423	1,204,770	579
March	987,990	424	994,080	580
April	1,558,520	425	1,106,490	581
May	1,099,660	726	1,300,250	582
June	2,265,550	727	1,474,010	584
July	1,795,490	728	1,433,780	583
August	1,533,610	729	1,471,500	586
September	2,460,590	730	1,669,370	587
October	2,028,320	731	1,395,010	588
November	3,329,080	732	1,653,210	589
December	1,242,400	733	1,308,280	590
<b>Total for 2005</b>	<b>19,159,120</b>		<b>16,482,220</b>	

**EMPLOYMENT (Common for Phase I and II)**

Year	Employee category	No. of Employees
2002 Jan	Power Station Operators	3
	Power Station Supervisors	5
	Power Station Assistants	11
2003 Jan	Power Station Operators	3
	Power Station Supervisors	5
	Power Station Assistants	11
2004 Jan	Power Station Operators	3
	Power Station Supervisors	5
	Power Station Assistants	11
2005 Jan	Power Station Operators	3
	Power Station Supervisors	5
	Power Station Assistants	11

**COMMUNITY DEVELOPMENT EXPENDITURE (Common for Phase I and II)**

Year	Details of projects	Expenditure (Rs.)
2002	Water supply scheme for estate	882,045
2003	Bridge at Ihalarathganga	300,000
2004	Community Centre	30,000
2005	Concreting road	100,000

# HULU GANGA PHASE I

## ELECTRICITY OUTPUT

Month	Electricity Output (kWh)	Source (Invoice Nos raised for CEB)
<b>2003</b>		
May	39,700	482
June	165,350	482&483
July	331,100	484
August	359,100	485
September	314,000	511
October	499,500	512
November	1,004,400	513
December	600,500	514
Total for 2003	3,313,650	
<b>2004</b>		
January	562,000	515
February	229,100	516
March	126,400	517
April	399,300	518
May	639,500	519
June	575,800	520
July	515,600	521
August	245,500	522
September	412,300	523
October	785,500	524
November	967,300	525
December	1,030,900	526
Total for 2004	6,489,200	
<b>2005</b>		
January	671,400	527
February	367,100	528
March	117,400	529
April	164,800	530
May	206,200	701
June	243,000	702
July	535,600	703
August	407,000	704
September	711,100	705
October	787,000	706
November	1,748,100	707
December	1,357,800	708
Total for 2005	7,316,500	

## EMPLOYMENT

Year	Employee category	No of Employees
2003 Jan	Power Station Operators	3
	Power Station Assistants	3
2004 Jan	Power Station Operators	3
	Power Station Assistants	3
2005 Jan	Power Station Operators	3
	Power Station Assistants	3

**COMMUNITY DEVELOPMENT EXPENDITURE**

Year	Details of projects	Expenditure (Rs.)
2003	School renovation of building and repairing desks and chairs	45,000
	Temple rehabilitation work	40,000
	Contribution for construction of Buddhist Centre at Huluganga	40,000
	Water supply scheme - Kosgama Pahalagama	60,000
	Water supply scheme - Kosgama Ihalagama	15,000
2004	Partition of class rooms of the school	30,000
	Temple rehabilitation work	70,000
	Contribution for construction of Buddhist Centre at Huluganga	35,000
	Construction of a water tank	10,000
	Electrification	55,000
2005	Renovation of school building	50,000
	Building a new shrine room for the Temple	130,000
	Contribution for construction of Buddhist centre at Huluganga	20,000

**EMISSIONS REDUCTION - ALL PROJECTS**

Year	Hapugestenne I		Hapugestenne II		Hulu Ganga I	
	Electricity Output (kWh)	Emissions Reductions (kgCO <sub>2</sub> )	Electricity Output (kWh)	Emissions Reductions (kgCO <sub>2</sub> )	Electricity Output (kWh)	Emissions Reductions (kgCO <sub>2</sub> )
2003	16,452,590	13,978,120	16,638,900	14,136,409	3,313,650	2,815,277
2004	20,519,150	17,433,070	19,580,160	16,635,304	6,489,200	5,513,224
2005	19,159,120	16,277,588	16,482,220	14,003,294	7,316,500	6,216,098
Total	56,130,860	47,688,779	52,701,280	44,775,007	17,119,350	14,544,600