



**INTERNATIONAL ENERGY INITIATIVE  
BANGALORE**

**List of  
workshops  
and information brochures**

**25/5 Borebank Road, Benson Town,  
Bangalore 560 046**  
[Tel/fax: +91 80 2353 8426, 2353 6897  
E-mail: [ieiblr@vsnl.com](mailto:ieiblr@vsnl.com)]

## Contents

### 1993

	page
1. Workshop on the electricity sector	1
2. Workshop on cogeneration in sugar factories	1
3. Workshop for NGOs on electricity, environment and development	1
4. Workshop on integrated electricity planning	1
5. Documentary films – The empowerment of Pura and <i>Janashakthi Pura-shakti</i>	2

### 1994

6. Workshop on electricity planning and development	2
7. Workshop on integrated electricity planning for electricity utilities in Asian countries	2
8. Preparatory workshop for project EASES	2
9. Workshop on integrated electricity planning	3
10. Workshop on integrated electricity planning	3
11. Conference BioResources - '94	3

### 1995

12. Solar water heater: one-time investment, long-term benefits	3
13. Workshop on privatisation and regulation in the power sector	3

### 1996

14. Workshop on energy efficiency in motors and motor driven systems	4
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### 1997

15. Karnataka's Power Sector: From Revelations to Recommendations – Press conference	4
16. Workshop on integrating captive generation and the Karnataka grid	4

### 1998

17. Pamphlets – on <i>Energy Efficient equipment</i>	5
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### 1999

18. Workshop to present large-scale dissemination of solar water heaters to reduce electrical energy and power for water heating	5
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2001

19. Workshop on power sector reform and public participation	5
20. Energy-efficient lighting in the domestic sector – a booklet on home lighting efficiency	6
<i>Short articles</i>	7

1. **Workshop on the Electricity Sector**, 24<sup>th</sup> February 1993, Bangalore

This workshop – IEI’s first – focused on the crises of the Indian electricity system and alternative strategies to address the problems. It targeted journalists who wrote on the energy sector, its purpose being to provide them with relevant information on issues of the electricity sector and development.

2. **Workshop on Cogeneration in Sugar Factories**, 2<sup>nd</sup> –3<sup>rd</sup> June 1993, Bangalore

Although India, with about 500 sugar factories, has been the world’s largest sugar-producer, cogeneration of electricity using high-pressure boilers had not been a common practice. However, the estimated 250 million tonnes of sugarcane processed annually in India could provide about 3,500 MW. A feasibility study was therefore undertaken of the viability of cogeneration of electricity from bagasse in sugar factories. The study demonstrated the possibilities of cogeneration in three cases, along with the costs and benefits of installing high-pressure boilers, based on the parameters indicated. IEI then conducted a two-day workshop, involving representatives from the government, electricity boards, banking, industry and both private and co-operative sector sugar factories to discuss the case studies and the involvement of the stakeholders.

3. **Workshop for NGOs on “Electricity, Environment and Development”**, 2<sup>nd</sup> - 3<sup>rd</sup> September 1993, Pune

A workshop for non-governmental organisations (NGOs) was held in Pune. The objective was to equip NGOs with information on practicable alternatives to the proposed mega-electricity projects. The NGOs were encouraged to consider and mobilise support for benign solutions.

4. **Workshop on “Integrated Electricity Planning”**, 8<sup>th</sup> - 9<sup>th</sup> October 1993, Calcutta

This workshop was held at the central office of the West Bengal State Electricity Board (WBSEB). West Bengal had several electricity utilities (long before restructuring and the attendant “unbundling” and privatisation of the power sector were mooted), hence the workshop had to have participants from the State government and from all these utilities – the State-run WBSEB and West Bengal Power Development Corporation Ltd. (WBPDCL), the private sector Calcutta Electricity Supply Company Ltd. (CESC), and the public sector Damodar Valley Corporation (DVC), the Dishergarh Power Supply Company Ltd. (DPSC) and the Durgapur Projects Ltd. (DPL). Its purpose was to introduce the engineers to a new paradigm in which the requirement of electricity services could be met with a least-cost combination of increased supply of electricity through various energy sources as well as improved efficiency of electricity use.

5. **Documentary films – “The empowerment of Pura” and “Janashakthi Pura-shakthi”, 1993**

A documentary video film of about 25 minutes entitled “The empowerment of Pura” based on the experience of the REWSU at Pura village was produced in English and Kannada. The film explained the benefits of a village-based renewable-energy-fuelled electricity and water supply utility. The Kannada version (“*Janashakthi Pura-shakthi*”) was intended for spreading information in local villages.

6. **Workshop on “Electricity Planning and Development” for Policy Planners, 4<sup>th</sup> - 5<sup>th</sup> January 1994, Bangalore**

This workshop for senior decision-makers in the government was attended by 31 officials of various ministries (including Power, Fertilizers, Urban Development, Rural Development, and Environment and Forests) of the Central and several State Governments in India; it was inaugurated by the Cabinet Secretary of the Government of India. The relevance of energy efficiency, conservation and decentralisation was discussed at the workshop, chiefly to influence the senior bureaucracy working in the energy sector and with associated departments.

7. **Workshop on “Integrated Electricity Planning for Electricity Utilities in Asian Countries”, 18<sup>th</sup> - 21<sup>st</sup> April 1994, Bangalore**

This five-day workshop was attended by 13 officials from utilities and related organisations in Malaysia, Nepal, South Korea, Thailand, and India, as well as a representative from the UNDP, New Delhi. The objective of the workshop was to emphasise the importance of energy conservation, decentralised sources of supply and environmental considerations, and to bring these to the notice of the utilities facing crises in capital requirement and performance. There was active participation in the discussions as members from different countries expressed interest in each others’ problems, steps taken to introduce efficiency and conservation measures, and efforts to privatise the power sector. The participants were also taken on a field visit to a biogas plant.

8. **Preparatory Workshop for Project EASES, 3<sup>rd</sup>-5<sup>th</sup> May, 1994, Kuala Lumpur**

The preparatory sessions for the Efficiency-oriented and environmentally constrained Alternative Strategies for Energy Scenarios (EASES) project consisted of presentations of methods of energy planning. At this workshop, the development-focused end-use-oriented service-directed (DEFENDUS) method of meeting the demand for energy services was described.

9. **Workshop on “Integrated Electricity Planning”**, 29<sup>th</sup> - 30<sup>th</sup> July 1994, Bangalore

A seven-module two-day workshop was attended by 27 participants from the Karnataka utilities. It focused on global trends, the planning approach used in India, the alternative DEFENDUS (development-focused end-use-oriented service-directed) approach (including scenarios for Karnataka as examples), implementation of non-conventional generation schemes such as biogas-based rural electricity and water supply utilities (REWSUs) and co-generation of electricity at sugar factories, and also the barriers to energy efficiency and decentralised renewables. A task force was constituted (consisting of members from the Karnataka State electricity utilities – KEB and KPCL, and from IEI) to carry out least-cost exercises for Karnataka.

10. **Workshop on “Integrated Electricity Planning”**, 5<sup>th</sup> - 6<sup>th</sup> August 1994, Hyderabad

This workshop for the Andhra Pradesh utilities was similar to that for Karnataka. Here too, a team of officials was constituted to work with IEI on the preparation of least-cost electricity plans for their state.

11. **Conference “BioResources – ‘94”**, 2<sup>nd</sup> – 8<sup>th</sup> October 1994, Bangalore

IEI, in collaboration with the Stockholm Environment Institute and the Biomass Users Network, organised this international conference to highlight the importance of bio-resources for sustainable development and to motivate representatives from around the world to take specific initiatives towards promoting the use of energy from biomass. 53 countries were represented by over 200 participants. Over a five and a half day period, there were presentations on various aspects of bio-resource use and sustainability.

12. **“Solar water heater: One-time investment, long-term benefits”**, 1995

This booklet was intended to familiarise prospective users with the potential for reducing their electricity use and thereby to generate a demand for solar water-heaters (swhs). The booklet describes swhs in simple terms, explains the advantages, and outlines the procedures for installation.

13. **Workshop on “Privatisation and Regulation in the Power Sector”**, 21<sup>st</sup> - 23<sup>rd</sup> June 1995, Singapore [jointly sponsored by the United Nations Development Programme]

IEI (with funding from the UNDP) organised this workshop at which it articulated its ideas on corporatisation, privatisation and regulation in the power

sector. Representative experiences from the UK, the USA, Norway, Chile and Argentina were dissected and put forward to a group of 10 Asian governments and utilities who, in turn, related their own experiences. Although two persons (a senior manager from the main utility and an official from the energy ministry) were invited from every country in Asia, the countries finally represented were Bangladesh, China, India, Indonesia, Korea, Malaysia, Myanmar, Nepal, the Philippines, and Sri Lanka. IEI contributed papers on the issues and problems involved in privatisation and integrated resource planning. The message that became clear was that privatisation is not a panacea to solve the electricity crises (of capital, performance, environment, pricing and access) that seem almost endemic among developing countries; however, there are viable models of corporatisation, privatisation and regulation that, if applied carefully, could address these crises and also advance sustainable development. The papers presented at the workshop were edited for a Special issue of IEI's Journal (*Energy for Sustainable Development*, Volume III, No.6).

14. **Workshop on “Energy Efficiency in Motors and Motor Driven Systems”**, 29<sup>th</sup>-31<sup>st</sup> January 1996.

Sponsored by the Energy Management Centre (Ministry of Power, Government of India), IEI organised a workshop to provide information on improving the efficiency of motors and their drive systems. The target audience included practising engineers, equipment purchase managers and general managers of industries. The efficiency measures would not only generate more profits for the concerned industries but also save electrical energy in the national interest. The workshop was designed for engineers and managers from industries that have considerable use of electrical energy, but was also useful to managers of financing institutions that financed the purchase of equipment. Faculty were drawn from industry and the Indian Institute of Science (Bangalore) and the 30 participants came in from industries located all over southern and western India.

15. **“Karnataka’s Power Sector: From Revelations to Recommendations – Press conference**, addressed by Amulya K.N.Reddy, 19<sup>th</sup> July 1997, Bangalore.

IEI’s work on Karnataka’s power sector – analysis and recommendations -- were presented to the press in order to publicise IEI’s views. (Papers in both English and Kannada were circulated).

16. **Workshop on “Integrating Captive Generation and the Karnataka Grid”**, 19<sup>th</sup> December 1997, Bangalore.

This workshop was arranged for the purpose of discussing a number of issues and problems related to integrating captive generation sets (CGS) with the grid. Invitees included representatives from the energy sector, the two power sector utilities, and manufacturers of CGS. Some of the questions for discussion were:

Were there previous attempts to connect CGS to the grid? If they failed, what were the technical, financial, administrative and other reasons? What would be the impact of increased utilisation of CGS on their performance and life? What are the problems of liquid fuel availability for increased utilization? What investment and business risks do captive generators face with regard to grid connection? What are the problems of the Central and State Governments in implementing the integration of CGS with the grid? What are the technical problems (synchronisation, safety, etc.) faced by generators arising from connecting the CGS to the grid? What are the environmental impacts (increased resource use, pollution, etc.) of the increased utilization of CGS?

**17. Pamphlets – on *Energy Efficient Motors, Energy Efficient Pumps, Energy Efficient Fans, Energy Efficient Compressors, and Energy Efficient Refrigerant Compressors*, 1998**

Based on the analysis carried out, a series of pamphlets on improved efficiency in motors and motor-driven systems were published. These five pamphlets include methods of using such systems efficiently, the cost of possible energy saving and the payback period for improved devices. They have been deliberately designed at a popular level with attractive diagrams, decision trees and computation charts to help facilitate the choice and efficient operation of such devices.

**18. Workshop to present “**Large-scale Dissemination of Solar water heaters to reduce electrical energy and power for water heating**”, 26<sup>th</sup> August 1999, Bangalore**

A report had been prepared detailing the basic features of a solar water heater (swh) and its installation, the economic advantages, and, particularly, the requirements for large-scale dissemination such as finance, training, manufacturing process, quality control and supportive policies. A discussion on these issues was held with an audience comprising officials from Karnataka’s state government, particularly the utilities and the energy department, as well as several swh manufacturers officials.

**19. Workshop on “**Power Sector Reform and Public Participation**” organised by IEI-Bangalore and Prayas Energy Group, Pune, 24<sup>th</sup> - 25<sup>th</sup> August 2001, Bangalore**

This workshop was organised jointly by IEI-Bangalore and Prayas Energy Group (Pune), for non-governmental organisations (NGOs) and consumer groups, with *the objective of discussing the new regulatory régime, why public groups should get involved and the roles they can play*. Many individuals and organisations working for the protection of public interest are engaged in regulatory intervention as also political and legal action. However, these

individuals and organisations sometimes suffer from a lack of adequate information, analytical tools, and human and financial resources. Hence, it was felt that consumer groups should improve their understanding, share their experiences and pool in their expertise.

The workshop was arranged for two days: on the first day, discussions included the case for regulation, the regulatory process, case studies of intervention in the electricity regulatory process, techno-economic issues and the sharing of concerns. On the second morning, the focus was on the importance of least-cost options when striving to meet electricity requirements<sup>1</sup>, tariff policies, and discussion about future plans. In the afternoon, a meeting was arranged between the participants and members of the Karnataka Electricity Regulatory Commission.

**20. Energy-efficient lighting in the domestic sector – a booklet on home lighting efficiency**, Antonette D'Sa and K.V.Narasimha Murthy, December 2001

Various energy-efficient lamps are being advertised by manufacturers. However, there is need for greater awareness of the actual benefits of switching from one type of bulb to another, particularly because of the array of options now available. Further, domestic tariffs are as yet not high enough to compel consumers to shift to more efficient devices, as has been the case with the commercial sector. Hence, a booklet on domestic lighting has been printed for circulation.

Data on the different types of lighting devices currently available in India, together with their technical specifications and market prices were gathered. The booklet contains details on comparable lighting replacements of the existing bulbs with fluorescent and compact fluorescent lamps, along with the electricity and financial saving possible (based on the market prices prevalent in India at the time). In contrast to commercial publications, this booklet does not refer to any particular manufacturer. Further, it contains details not available elsewhere -- for example, resulting from our analyses, we have presented the annual value of costs and electricity use for each device and have also summarised the effects on all players – the consumers, the utility, and society at large.

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<sup>1</sup> Here, IEI took the opportunity of explaining and stressing the importance of integrated resource planning (IRP) in the power sector.

### Short articles:

1. **“Enron deal vs the new energy paradigm”**, Amulya K.N.Reddy and Antonette D’Sa, *The Economic Times*, 28<sup>th</sup> June 1995, p.5
2. **“A new approach to energy”**, V.Balu, *The Economic Times*, 16<sup>th</sup> September 1995.
3. **“Wanted: A Vision of Sustainable Future”** (originally titled: Karnataka’s Power Sector – Some Important Revelations), Amulya K.N.Reddy and Gladys D. Sumithra, *The Economic Times*, 21<sup>st</sup> February 1997, p.5
4. **“Karnataka’s Power Sector – What is to be done”**, Amulya K.N.Reddy, *The Economic Times*, 5<sup>th</sup> April 1997, p.5
5. **“Karnataka’s Power Sector: From Revelations to Recommendations”**, Amulya K.N.Reddy, *The Hindu*, 20<sup>th</sup> August 1997, p.25
6. **“Electrical Energy Subsidies and Tariff Changes – Some Criteria for Efficient Use”**, Amulya K.N.Reddy, *Deccan Herald*, 28<sup>th</sup> August 1997, p.8
7. **“APSEB Restructuring: Choose the Right Switch”**, Amulya K.N. Reddy and Sudhir Chella Rajan, *Business Line*, 17<sup>th</sup> October 1997, p.24
8. **“Regulatory Reform in the Power Sector”**, Amulya K.N.Reddy and Sudhir Chella Rajan, *Business Line*, 6<sup>th</sup> December 1997, p.24
9. **“Power Doctor’s Medicine”**, Amulya K.N.Reddy, *Deccan Herald*, 1<sup>st</sup> June 1998, p.19
10. **“Karnataka Power Sector Reforms/Restructuring – Wider Debate Essential”**, Amulya K.N.Reddy in *Deccan Herald*, 8<sup>th</sup> June 1999, p.10
11. **“Big Dams: A Fresh Approach”**, Amulya K.N. Reddy, *The Hindu*, 30<sup>th</sup> September 1999, p.12
12. **“Not a Worst Case Scenario – Looking Beyond Cogentrix”**, Amulya K.N. Reddy, *Deccan Herald*, 7<sup>th</sup> January 2000, p.8
13. **“The Curate’s Egg – The Escrow Cover Report”**, Amulya K.N. Reddy, Antonette D’Sa and K.V.Narasimha Murthy, *Deccan Herald*, 31<sup>st</sup> March 2000, p.10
14. **“Paying for Power”**, Amulya K.N. Reddy, *The Hindu*, 15<sup>th</sup> June 2000, p.10
15. **“Electricity Regulatory Commissions – They must ensure public benefit”** by Amulya K.N. Reddy and Antonette D’Sa in *Business Line*, 28<sup>th</sup> August 2000, p.11

16. **“Power Tariff Hike Need to Improve Efficiency”** by Amulya K.N. Reddy in *Deccan Herald*, 19<sup>th</sup> January 2001, p.10
17. **“Lessons from Enron”** by Amulya K.N. Reddy in *The Hindu*, 22<sup>nd</sup> January 2001, p.12
18. **“Lessons from California”** by Amulya K.N. Reddy in *Frontline*, 6<sup>th</sup> July 2001, pp. 85-87
19. **“Need for Rethink of Karnataka Power Reforms - Pitfalls of Privatisation”** by Amulya K.N. Reddy in *Deccan Herald*, 4<sup>th</sup> January 2002, p.10
20. **“Need for Rethink of Karnataka Power Reforms – Dubious Reforms Record”** by Amulya K.N. Reddy in *Deccan Herald*, 5<sup>th</sup> January 2002, p.8
21. **“The new paradigm for energy”**, by Amulya K.N.Reddy, *Current Science*, Vol.82, No.3, 10<sup>th</sup> February 2002, pp.258-259
22. **“Answer to Power Crisis – Integrated Resource Planning”** by Amulya K.N. Reddy in *Deccan Herald*, 5<sup>th</sup> July 2002, p.8
23. **“A Nuclear Story”** by Amulya K.N. Reddy in *Deccan Herald*, 22<sup>nd</sup> September 2002, p.4