



**Integrated Resource Planning (IRP)
for Electricity Distributing Utilities in India
with special reference to the Bangalore Electricity Supply Company
(BESCOM)**

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Abstract:

Integrated resource planning (IRP) is a method that considers both supply and demand-side measures to meet the need for resources, while minimising the costs accruing to the firm and to society. IRP enables planners to assess a range of options through which the demand-supply gap could be bridged in a sustainable manner.

However, despite the advantages of such an approach, IRP has not been used by Indian electricity utilities. Further, as most state utilities have been “unbundled”, it can be expected that individual distribution companies (Discoms) would face barriers to conducting integrated planning.

The objectives of this study are therefore to identify the barriers that discourage Indian Discoms’ adoption of IRP and locate feasible conditions in which these could be overcome. Using the case of the Bangalore Electricity Supply Company (BESCOM) and the available documentation, these barriers have been classified as financial, technical, and operational; for each, a possible solution is suggested. While these solutions would be necessary, the study also identifies conditions that would be sufficient for IRP to be practiced. Apart from mandatory requirements, these conditions include the provision of at least a specified level of electricity-services, and the minimisation of costs, environmental impacts, and future investments.

Keywords: integrated resource planning (IRP), power/electricity planning in India, power sector problems, distribution utilities, regional planning

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