

Feeder Separation

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In news : The Union Minister for Finance in her budget speech of 2021-22, proposed an outlay of Rs 3,05,984 crore over 5 years for a revamped reforms-based result-linked power distribution sector Scheme. The Scheme will provide assistance to DISCOMS for infrastructure creation, including pre-paid smart metering and feeder separation etc.

What is Feeder Separation?

- Feeder separation refers to the **supply of electricity to agricultural and non-agricultural consumers** (domestic and non-domestic) separately through dedicated feeders.
- This arrangement allows the distribution company to regulate power supply to agricultural consumers as and when needed for effective demand side management (DSM).
- The core objective of feeder separation is to provide regulated supply to agricultural consumers and continuous supply to non-agricultural consumers in rural areas.

Current status of Feeder separation in India

Feeder separation programmes have been successfully completed in Gujarat, Andhra Pradesh, Punjab, Rajasthan, Haryana and Madhya Pradesh, among other states.

Advantages

- It ensures better load management and increased power supply to rural households and small industries.
- It helps in flattening the load curve by shifting the agricultural load to off-peak hours, thus facilitating peak load management.
- For states with low levels of metered sales, feeder segregation allows greater revenue potential for discoms

- as it helps in reducing the theft and technical losses that prevail in unmetered agricultural consumption.
- It also helps in reducing the peak power purchase cost through better distribution of agricultural load, leading to savings for discoms.
 - As per the survey conducted by the World Bank in 2014, prior to feeder segregation, more than 80 per cent of consumers in Rajasthan and Gujarat complained of low voltage problems; post segregation, this came down to 6 per cent.
 - Due to the increase in the rural labour force involved in non-agricultural activities, the increase in electricity supply through feeder segregation has also led to several socio-economic benefits, including job creation and improvement in the quality of life.

Feeder Separation under Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY):

- Government of India has approved DDUGJY) in December, 2014 for separation of agriculture and non-agriculture feeders facilitating judicious rostering of supply to agricultural & non-agricultural consumers in the rural areas, strengthening and augmentation of sub-transmission & distribution infrastructure in rural areas, including metering at distribution transformers/feeders/consumers.
- Feeder separation under DDUGJY involves ensuring judicious rostering of supply to agricultural and non-agricultural consumers in rural areas.
- Under DDUGJY, Feeder separation includes the **physical separation** of high tension (HT) feeders for agricultural and non-agricultural consumers, and the **virtual separation of feeders**
- Virtual feeder separation involves installation of single phase DTs on existing HT lines for domestic consumers

- This entails the erection of HT lines for drawing new feeders and the reorientation/re-alignment of existing lines, installation of new distribution transformers (DTs) and augmentation of existing DTs, and relocation of DTs and associated low tension (LT) lines for re-grouping of agricultural and non-agricultural consumers.
- Feeders already segregated by the utilities are not covered under this scheme