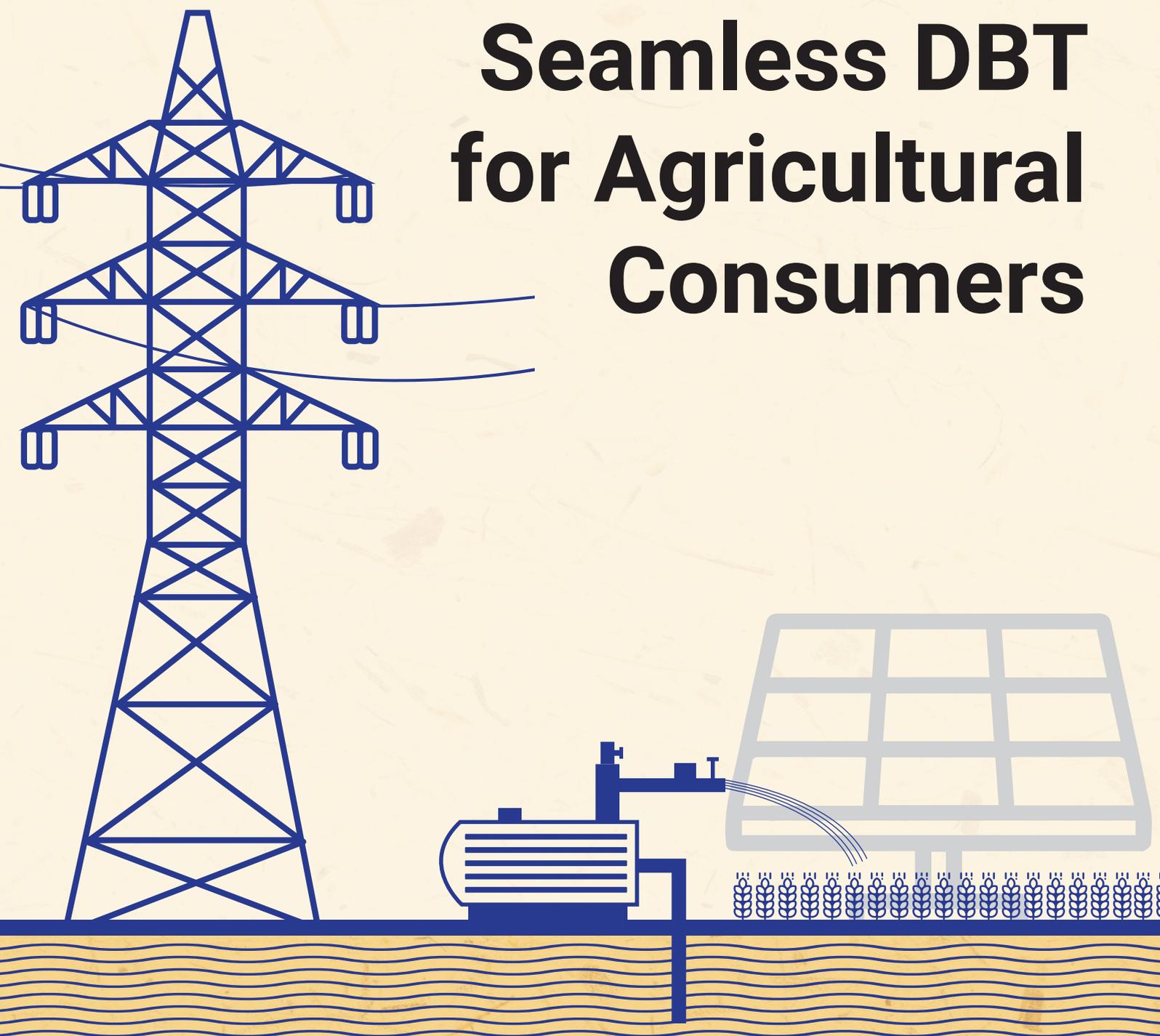


# Seamless DBT for Agricultural Consumers



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## Introduction

The proposed Electricity (Amendment) Bill, 2020, for the Electricity Act, 2003, intends to bring major reforms in the Indian power sector. One of the proposed amendments is in Section 65 of the principal Act.

The section states that state governments should pay subsidy to electricity distribution companies (DISCOMs) in advance for electricity supplied to irrigation pump (IP) sets under the agricultural category. At present, the State Electricity Regulatory Commissions (SERCs) approve the energy sales by DISCOMs to these consumers (both metered and unmetered) and the DISCOMs then claim the subsidy based on the approved electricity consumption from state governments. The current provision has several loopholes, with various reports indicating that the energy consumption for which subsidy is claimed is often inflated. The delay in subsidy payments also impacts the financial position of DISCOMs, which are already suffering from poor financial health.

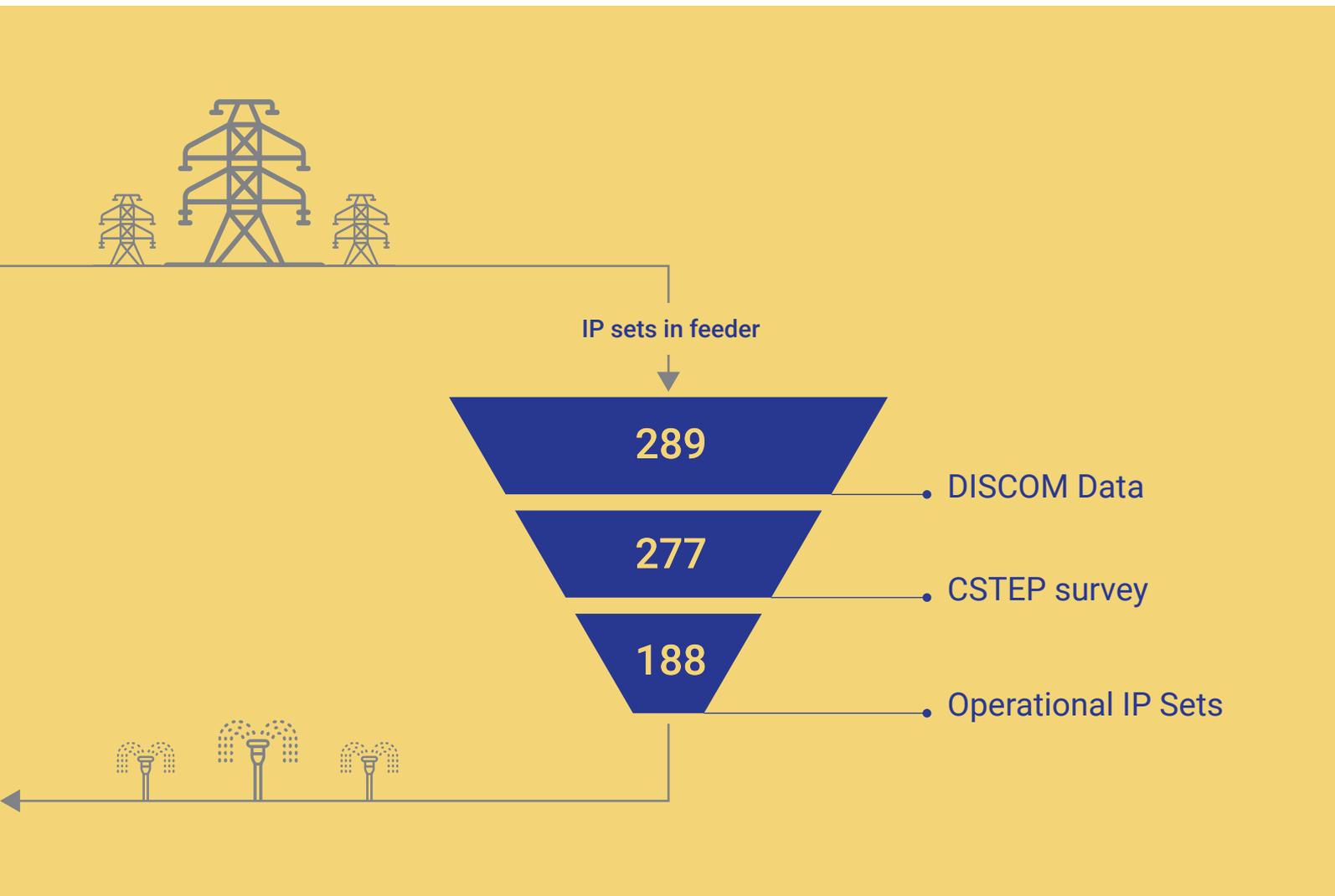
**The proposed amendment** is intended to replace this provision with a **Direct Benefit Transfer (DBT) scheme**. Under this scheme, state governments transfer the subsidy directly to consumers, and DISCOMs then charge the consumers based on the tariff determined by the SERCs.



## Key Insights

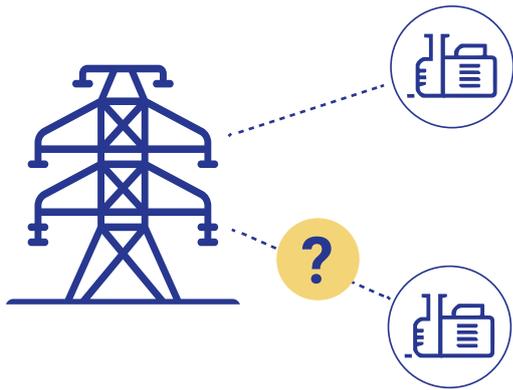
In Karnataka, consumers using IP sets with up to 10 HP capacity, are supplied free power. However, as most of the IP sets are unmetered and because of the lack of data on the total number of IP sets and their capacity, consumers with higher capacity IP sets also tend to enjoy free power supply.

The Center for Study of Science, Technology and Policy carried out a study in one agricultural feeder in Karnataka for an assessment of electricity consumption by IP sets. We surveyed the entire feeder to geo-locate all the connected distribution transformers (DTs) and IP sets. While the DISCOM data showed 289 IP sets in the feeder, we found only 277 IP sets. Of these 277 IP sets, only 188 were found to be in working condition.

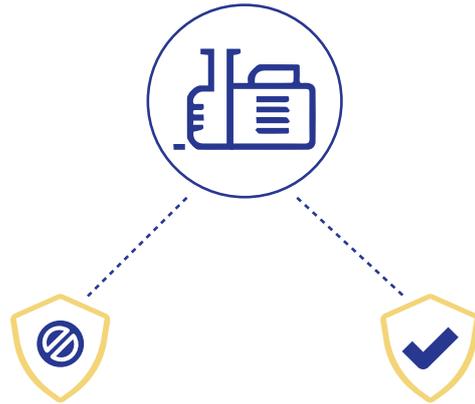


# Key Insights

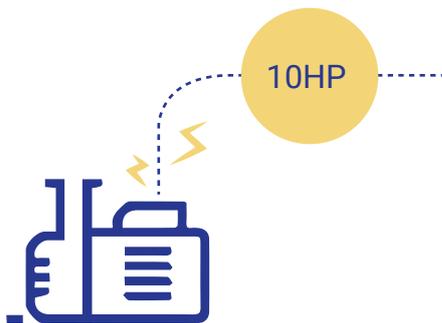
Inaccurate DISCOM data on the number of IP sets



IP sets drawing power include both authorised and unauthorised connections



Higher specific consumption / IP set shows that the pump capacity may be more than 10 HP  
[\(Refer annexure\)](#)



No process by DISCOMs to verify the pump capacity



If DBT is implemented under the present situation, it will not achieve the desired objective of serving the right consumers. Thus, DBT implementation in the agricultural sector must be structured carefully.

## Pre-requisites



Validate authorised and unauthorised IP connections



Awareness programmes for farmers on the benefits of metering



Fix meters on the poles to avoid tampering of meters or direct connections



State governments should provide subsidy for installing meters



Only consumers with meters should be allowed free supply



Analyse the consumption pattern to fix the consumption/IP per month for subsidy claim

# How it Works

1



Provide smart cards to consumers for subsidy payments in view of big landowners leasing their land for cultivation to small and marginal farmers.

2



Design smart cards to enable digital transactions and top-ups to avoid the inconvenience related to bank access.

3



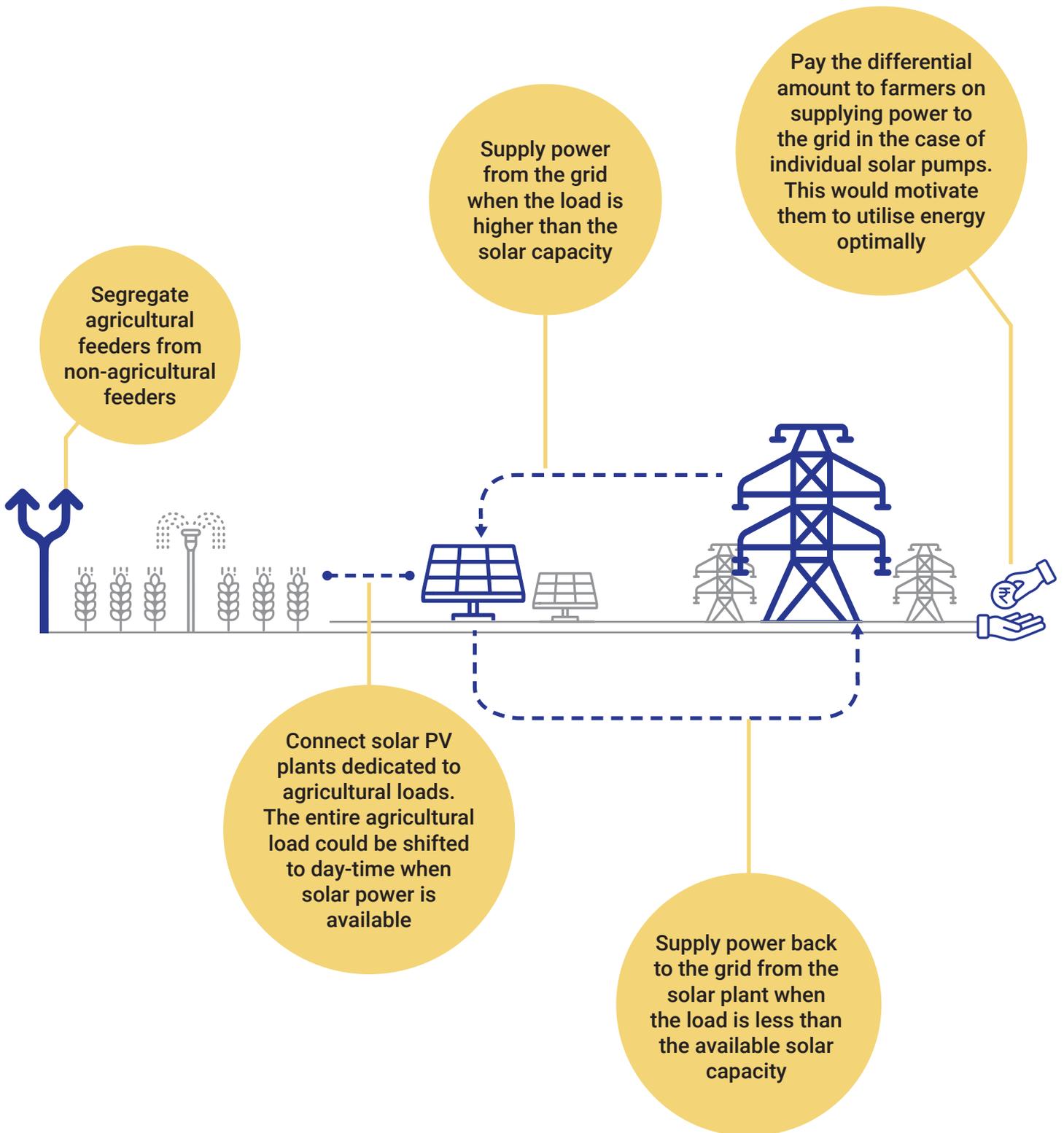
Update quarterly amount in smart cards based on the consumption limit set for the area.

4

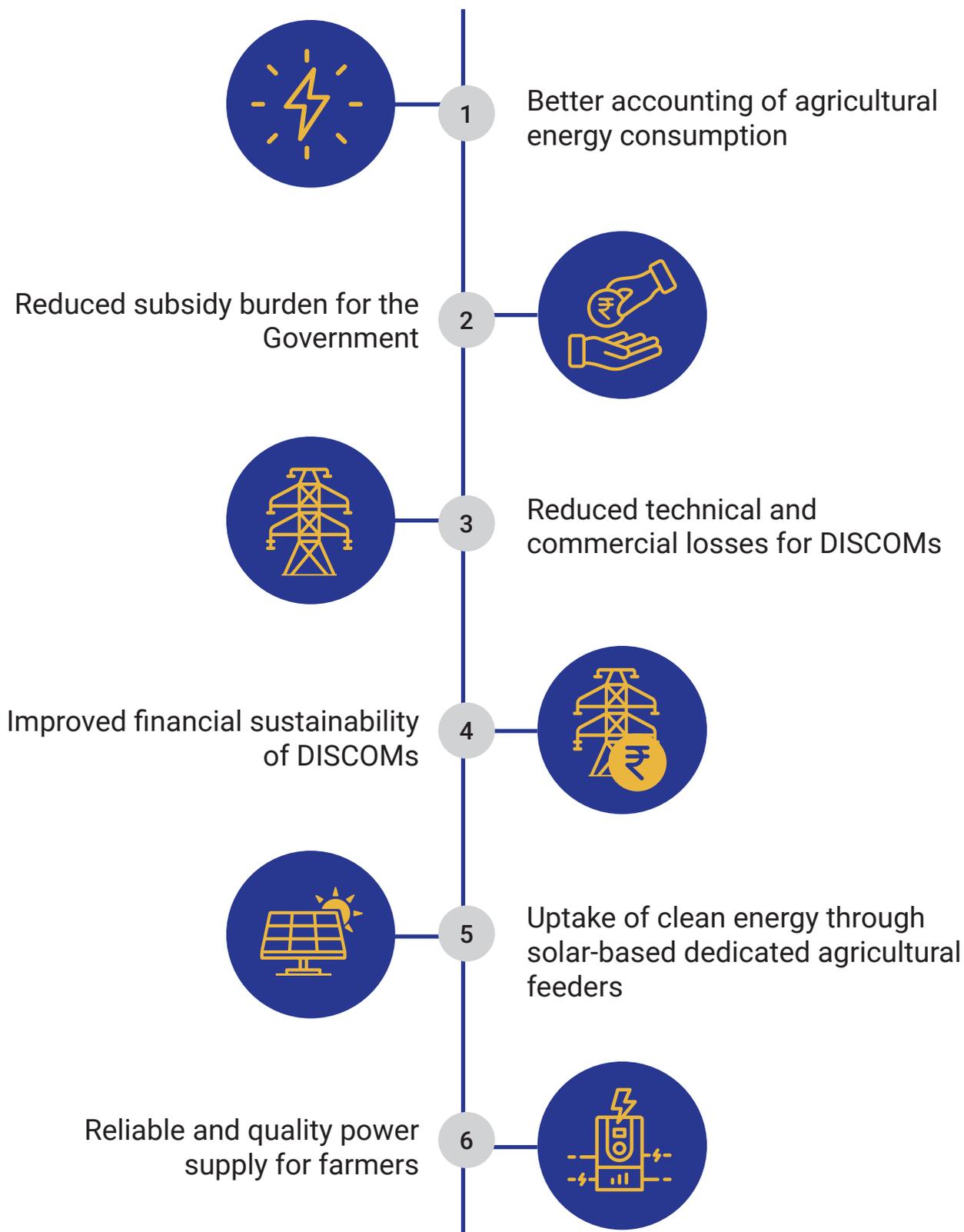


Deduct the relevant amount at the time of billing.

# Towards a Sustainable Model



# Benefits

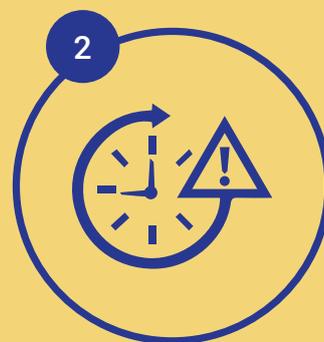




## Barriers



Willingness of farmers



Procedural delays

## Annexure

Table 1: Comparative analysis of specific consumption per IP set

Particular	Unit	Case 1	Case 2	Case 3	Karnataka Electricity Regulatory Commission (KERC)
Energy input (X)	kWh	2,34,600	2,34,600	2,34,600	
Total IP set (Q)	Nos.	289	277	188	
T&D loss (L)	%	10%			
Total sales (P) = $X \times (1 - L\%)$	kWh	2,11,140	2,11,140	2,11,140	
Commission determined tariff (CDT) <sup>1</sup>	INR/unit	3.7			
Specific consumption per IP set per year (R) = $(P/Q) \times 12$	Units	8,767	9,146	13,477	7,324
Subsidy claim per IP set per year (S) = $(R \times CDT)$	INR	32,438	33,840	49,865	27,098

<sup>1</sup> It is the commission-approved tariff for agricultural feeders in BESCO.



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