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**FREE ELECTRICITY POLICY IN TELANGANA  
STATE – AN OBSERVATIONS**

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**Abstract:** *In India, farmers use electricity mainly for energizing irrigation pump sets to extract groundwater. The number of electric tube wells has increased tremendously over time with the availability of free electricity. In 2018, Telangana Government became the only state in India with a high proportion of agriculture power consumption to implement 24x7 free power supply to all farmers. In other such states, agricultural supply is restricted to 8-10 hours in a bid to curtail outflow of subsidy and conserve resources. Telangana was providing 7 hours of free power supply to its unmetered farmers in 2014 and the hours of supply was increased to 9 hours in 2016. After a pilot project of 24 x 7 supply in a few distribution circles in 2017, it was extended to the whole state from January 01, 2018. The present paper analyses the status of the free electricity supply for agriculture sector and consequences.*

**Keywords:** *Telangana, Free Electricity for Agriculture, Problems*

**Introduction**

Free electricity supply for farmers is a unique feature of the Indian electricity industry. Most of the Indian states have ensured agricultural consumers a free, or highly subsidized, often unmetered electricity supply. After electricity was put under public control and local states received the authority to set electricity prices in 1948 following the Electricity (Supply) Act, electricity pricing rapidly emerged as a powerful political tool and stake. Since then, political parties have campaigned for a subsidized or free electricity supply for agricultural consumption, in anticipation of capturing farmers' political support. Free electricity has become such a political node that, in recent years,

it has gained a prominent place in party manifestoes. Elections are sometimes won or lost based on political parties' commitment to this policy. Although the free-electricity policy is implemented as a political or vote-gaining tool, it has been marketed as a policy for increasing agricultural yields, ensuring food security, and reducing rural poverty.

However, in recent years, the free-electricity policy has been criticized as a populist paradox. Since the launching of economic liberalization in the early 1990s, it has become highly vexatious. The policy has been criticized on various grounds. First, the free-electricity policy does not so much help the farmers, particularly the poorest among them, as this free electricity is largely being stolen by non-agricultural consumers or captured by a few large landed farmers. Second, the implementation of a free-electricity policy, even after cross-subsidization from industrial and commercial consumers, has driven the electric utilities and state governments into a financial crisis. In many cases, as in Andhra Pradesh and Punjab, the amount of the agricultural electricity subsidy is much higher than the state's spending on health or education. Third, the free-electricity policy has prompted the unaccounted and uncontrolled use of electricity, resulting in the agricultural sector consuming one-fourth of the country's total electricity supply.

Consequently, this policy has been blamed as one of the major sources of the current electricity crisis in India. Finally, the policy has also been blamed due to its environmental implications. It has prompted the overuse of groundwater for irrigation, resulting in the depletion of water tables, something that poses a serious environmental threat. This depletion has a compounded impact on electricity consumption: as the water table goes down, the amount of electricity required for extracting water goes up, further adding to carbon emissions *via* the extra electricity generated.

From the viewpoint of the Indian government, as well as international donors who are hoping to help India better manage its energy landscape, this raises the difficult question of whether they should work towards eliminating the free-electricity policy or rather working with it as an unavoidable constraint.

Though there has been a consensus among Indian policymakers on the phasing out of electricity subsidies to agriculture, there has also been increasingly stiff resistance to any attempt in that regard. Abolishing the free-electricity policy may be desirable from the perspective of improving the financial status of state governments, and improving the quality of the electricity supply and of the environment, yet it may also render the agricultural sector more vulnerable and reduce food production.

The rationalization of electricity subsidies in agriculture, however desirable it may be, is a major policy challenge and would entail a drawn-out process. Addressing this challenge would require manoeuvring at the policy and implementation level to eliminate opposition, create a support base and provide an enabling environment. Too frequently, the efforts to address the problem of free electricity have been promoted as a strategy for reducing the fiscal burden on states and utilities, and perceived as a

strategy to remove support from the farmers. Giving primacy to fiscal concerns creates a win-lose situation where the states gain at a cost to farmers; hence, opposition from the losers. There is a need to create a win-win situation, where both the state and farmers gain while reducing the consumption of electricity and groundwater.

### **An Introduction to Electricity Subsidies**

Subsidies to utility customers are a salient feature of the electricity industry worldwide. The sources of these subsidies vary. In some cases, a subsidized electricity supply is funded through transfers from general tax revenue in the form of either capital projects or regular transfers to bridge the revenue gap. The retail electricity price is also subsidized by less-visible input subsidies to utilities, like subsidized fuel for electricity generation. In some cases, subsidized electricity to one category of consumers is funded through cross-subsidization from other consumers. In other cases, where the utilities lack adequate funding for a subsidy, they simply absorb the revenue loss, gradually wearing down capital stock and pushing repair and maintenance costs off into the future.

The total value of electricity subsidies, particularly in the case of underdeveloped and developing countries, can represent a substantial share of public expenditure and utility costs. The most striking examples of state-funded electricity subsidies come from countries of the former Soviet Union, with estimated funding of more than 10% of gross domestic product (GDP). India spends around 1.5% of its GDP to fund subsidized electricity. In addition, electricity subsidies in India are funded through subsidized inputs to utilities and cross-subsidization from industrial and commercial consumers. Even then there is a revenue gap, which the utilities are forced to absorb.

Electricity subsidies are widely popular among policymakers, politicians, utilities, and consumers; yet they remain the subject of much controversy. The key driver for electricity subsidies has been removing disparity in access to electricity services among income groups within a particular jurisdiction. The underlying belief is that poor consumers would be unable to afford electricity service without a subsidized price. In practice, the benefit of electricity subsidies is spread across all the stakeholders: the politicians gain votes by using subsidies as a political tool; utilities benefit as they cover up their inefficiencies through subsidized consumption; and the consumers benefit from the low cost.

The controversy comes from the adverse consequences of subsidized electricity that are perceived to work against the quality of service for existing consumers and extending access. Subsidies may promote an inefficient use of resources and thus indirectly raise the cost-of-service provision. Subsidies tend to produce financially weak utilities with stagnating service areas and declining service quality, as subsidies are not often adequately funded. The impact is worst for the poorest as they lack access to services and depend on other high-cost alternatives.

## **The Policy of Free Electricity to The Agriculture Sector in India**

The economy of India is broadly agrarian, with most of the population depending on it. Politically, the country is divided into 28 States and 8 Union Territories. The Constitution of India has provided a division of powers between states and the centre, and agriculture is a state subject. Providing free electricity to the agricultural sector is an important policy instrument to woo farmers in every election by most political parties.

Free electricity for agriculture is in vogue in states like Andhra Pradesh, Tamil Nadu, Telangana, and Punjab. Free electricity to agriculture for irrigation pump sets is a popular demand by farmers as irrigation increases farm incomes to the extent of 2–3 times compared to non-irrigated areas, for example, in areas where canal irrigation was not there, like Vidarbha and Marathwada of Maharashtra and most of Telangana and Rayalaseema region of erstwhile Andhra Pradesh (Telangana state is formed by bifurcating erstwhile Andhra Pradesh in the year 2014). Telangana is one of the top five states in farmer suicides due to such agrarian distress, mainly due to frequent droughts. From 1962 to 1982, electricity for agricultural purposes was charged based on metering under the Congress government, and there were fewer populist politics.

However, with the formation of the Telugu Desam Party (TDP) in 1982, populist politics came on the scene, and TDP promised slab rates for electricity for agricultural uses, based on the demand from farmers. TDP won the election with a thumping majority and implemented a slab system based on the horse electricity of irrigation pump sets.

Since TDP came to electricity in 1984, Congress and TDP have followed populist politics to gain votes. Therefore, every political party in the state tries to woo farmers through populist policies like free electricity for irrigation, sometimes ignoring the externalities that may arise out of the policies. Free electricity for agriculture is seen as a lifeline for the drought-prone agricultural sector by farmers; hence, in every election, it is the main campaign issue in the months before the election.

The election was carried out in 2004 after three years of drought in the Telangana and Rayalaseema regions. Political parties widely perceive that providing benefits to farmers is the surest way to win over many rural voters. In the 2004 Andhra Pradesh state elections, Congress promised free electricity and won the elections with a thumping majority. Providing free electricity is one of the first policy decisions taken by the Andhra Pradesh state government after winning elections in 2004. Free electricity for agriculture with huge electricity subsidies has continued since then (Table 1). It is very difficult for any government to roll back on subsidies despite giving any harm to the larger society.

**Table 1.: Electricity Policy for Agriculture from 1962 to 2018**

Sl. No	Year	User Charges
1	1962-93	Metering
2	1984-2004	Slab System
3	2004-Till Today	Free

**Source:** *Annual report of the State Electricity Board, Andhra Pradesh & Telangana*

### Competitive Populist Politics

Traditionally, farmers are voting banks for Congress in Andhra Pradesh as most of the leaders of the Congress are also from the farming community, from the village level to the state level. Most of them belong to the Reddy caste, which is a predominantly farming community (a caste is a form of social stratification characterized by occupation, ritual status in a hierarchy and customary social interaction). Since the early 1980s, most of the Indian states have been providing electricity for agriculture either free of cost or at highly subsidized rates under the pretext that farmers are poor and cannot afford electricity at open market rates and free electricity is essential for irrigation for increasing yields and profits. In India, there are 29 states, of which about one-third provide electricity free of charge, while the remaining states offer large subsidies to farmers. Figure 1 presents state-wise electricity charges levied on farmers and the cost of supplying electricity per unit in some major states. Punjab, Tamil Nadu, and Telangana supply it free of cost while the remaining states supply it below the actual cost.

The cost of electricity distribution companies ranges from Rs. 3.5/unit in Gujarat to 8.4/unit in Rajasthan. This huge gap in electricity charges levied on agriculture and the cost of supply by the electricity distribution companies will be given by the state governments in the form of an electricity subsidy. In India, the agricultural sector is a major consumer of electricity (18% of the total electricity production). Annual State government electricity subsidies are about Rs. 900,000 million in 2015–2016.

A major argument favouring free electricity is that some regions have a greater share of canal irrigation through public investments, and the investment cost per hectare is about Rs. 450,000. Whereas, the investment towards irrigation in non-canal areas is completely private. Individual farmers make a heavy investment in drilling borewells, purchasing pump sets, and incur electricity charges and maintenance expenses every year. All these initial investments (Rs. 0.1–0.2 million per hectare) and annual maintenance in borewell irrigation must be borne by the farmers. Many farmer representatives are therefore arguing for providing them free electricity by the state.

While a positive externality of free electricity for irrigation increases crop yields and profitability, some of the negative externalities are the over exploitation of

groundwater. The number of energized pump sets increased steeply in the recent past with the subsidized charges for electricity for agriculture across India. Punjab, Tamil Nadu, Karnataka, Haryana, Rajasthan, Telangana, Madhya Pradesh, and Andhra Pradesh are providing subsidies to farmers, more than 90% of the cost of power-to-electricity distribution companies. The latest report of the Central Groundwater Board shows that 1,034 of 6,584 assessed blocks in the country are overexploited, and these blocks are usually referred to as 'dark zones'. A 'dark zone' is an area where groundwater depletion exceeds the rate of recharging, for instance by digging more borewells than are required.

### **Free Electricity in Telangana**

India is one of the most democratic countries in the world that promotes socialist strategies and changes that would assist marginal populations. Providing farmers with free and non-metered electricity is one such well-acclaimed initiative. The Telangana state Government is helping to publicly supply a significant portion of energy and to introduce such a system involves a great deal of preparation and a special, personalized solution. The system proposed here would provide farmers with an increased allocation of energy resources and would promote the productive usage of energy and groundwater, irrespective of the free receiving of electricity. A desirable and theoretically feasible-transparent and efficient method for providing electricity subsidies is given by the mechanism. This offers incentives for energy utility employees to enhance operating and financial efficiency and establishes the conditions for growing rural access to electricity, thus increasing the tax burden for the government. Under the scheme, farmers can opt to provide free/subsidized electricity for a reduced hour or to set up existing supplies more easily for longer, mostly free/supported hours of provide. However, instead of hours of supply, the subsidy will be denominated in the quantity of energy. The system would not influence public policy decisions by the government to grant free or subsidized electricity or to attempt or minimize the incentives currently being given or farmers. Its emphasis is on enhancing the productivity, justice, and cost-effectiveness of supplying farmers with energy subsidies. There is an opportunity to greatly increase the impact and efficacy of the new scheme if the direct supply of energy subsidies to farmers is coordinated with existing complementary groundwater and irrigation development programs.

Electricity saved by the farmer by productive usage or recycling may either be applied to the allowance of farmers for next year or, at the choice of the farmer, can be encased at the controlled tariff stage. Also, this mechanism completely moves the benefits farmers obtain free energy to make renewable agriculture and freshwater use, while output increases will continue or be monetized. This device is a self-correcting mechanism that will need a larger allotment if very few farmers saved or monetized their investment. Not only will the company be able to provide the tube wells with electricity for longer hours if farmers are full-tariff consumers, but it will also gain demand diversity, saving on generation and network costs. Subsidy based on kWh



would also minimize framers' apprehensions of increasing tariffs. Provided that farmers will have a choice at the feeder level to stick with the current scheme or select a new scheme of direct subsidy distribution, political opposition is unlikely to occur. Politicians, on the opposite, will gain electoral gains through the allocation of incentives and increased electricity supply to villagers.

Timely and adequate availability of inputs is vital for enhancing crop productivity. The Government of Telangana maintains strict vigil and tracks the supply of seeds, fertilizers, and pesticides to the farmers in the State. To enhance irrigation facilities, the government has implemented multiple initiatives including the supply of 24x7 free electricity for agriculture. Telangana is the only State in the country that provides an uninterrupted electricity supply for agriculture to all farmers at no cost.

Since 1<sup>st</sup> January 2018, the Government is providing a 24-hour free and quality electricity supply to the agricultural consumers in the State. Out of the total electricity supply in the State, about 40% is towards agriculture. After the formation of the State, 6.6 lakh new agriculture connections have been released in the State, taking the total number of agricultural connections to 26.22 lacks. Since 2014-15, the government has incurred an amount of Rs. 49,314 crores towards subsidies given for the supply of free electricity to the farmers in the State. The present electricity consumption has increased to 3,500 MW as against 1,500 MW before the formation of the State. At all India levels, Telangana consumes the highest percentage (41.25%) of electricity for agriculture purposes (24077 GWh out of total energy sold of 58,365 GWh 9) in 2018-19.

### **Supply of the Free Electricity for Farmers of Telangana**

In India, farmers use electricity to draw groundwater, mainly to energy irrigation pumps. Through the existence of free electricity, the volume of electrical tube wells has risen enormously over time. There was a need for new electricity connections to raise tube power, impacting national electricity grids increasingly. The proliferation of tubes led to the competitive use of groundwater by farmers at the cost of almost null extraction. Excess groundwater extraction leads to falling tables, which leads to good failure.

Furthermore, the externalities of energy subsidies do not rely on different segments of the farming community equally and rely on citizens with energy to supply the pipeline. Therefore, only a fraction of the rural community, even in irrigated fields, received energy subsidies. The majority belonged to the Middle and large land groups of Tamil Nadu, among those who have gained from the free electricity supply. However, marginal, and small farmers also benefited in Karnataka because of the differential tariff pattern existing for different capacity pump sets.

Promoting an effective, economically sustainable, and successful electricity system is the key goal of reforming the electricity sector. Merrill Lynch's report, which focused largely on input from industry members, found that competitively priced and

high-quality capability must be globally competitive. It has been proposed that it is important to smash the SEB monopoly and bring competition to increase the quality of service. The plurality of responses suggested that it was necessary to unbundle and eventually privatize the SEB and that it should be expedited. It was also proposed that the rationalization of tariffs and the straightforward distribution of subsidies be paramount. Responses from other consumer groups, citizens and non-governmental organizations broadly demonstrated the need for enhancements and increased quality of consumer service.

With this background, this study examines the pros and cons of providing free electricity. This study examines the policies of energy use in agriculture and its impacts on the use of free electricity by farmers based on the data collected from Karimnagar and Warangal districts that are administered under Telangana State Northern Electricity Distribution Corporation Limited in (TSNPDCL) Telangana State.

Telangana State has extended 24x7 electricity supply to Agricultural Consumers since January 2018. TSNPDCL has been phenomenal in the efficient rollout of 24x7 electricity to agriculture consumers. TSNPDCL has invested Rs. 2,048 Crore for the infrastructure development to cater to the additional load due to the extension of 24x7 electricity for the agricultural category. TSNPDCL has also tied up sufficient electricity with generators to cater to the additional demand and peak demand management. Due to the implementation of 24 Hours Supply to Agriculture, demand increased from 2,909 MW in 2016-17 to 3,445 MW in 2017-18. TSNPDCL has also tied up sufficient electricity with generators to cater to the additional demand and peak demand management. Due to the implementation of 24 Hours Supply to Agriculture, demand increased from 3,445 MW in 2017-18 to 4,350 MW in 2018-19. The government of Telangana has provided a tariff subsidy of Rs.3,284.52 Crore for providing a free electricity supply to agriculture consumers during the FY 2021-22. 12,51,686 Nos. of Agriculture consumers benefited during the FY 2021-22.

## **Conclusion**

Free electricity is seen as a lifeline for the crisis-ridden agricultural sector in drought-prone non-command areas. It is argued that it has not given any respite to the agrarian distress that is already prevalent in the state. It is fair to say that with an increase in the area under borewells, the cropping pattern has shifted from low-profit crops like rainfed sorghum to HVCs like cotton, maize, chickpea, and groundnut with supplementary or protective irrigation. In many cases, crop yields have doubled with the introduction of irrigation. However, there is a danger of the policy that could lead the farmers to take unbearable risks in the form of drilling new borewells or replacing the old borewells with new deeper borewells. In the process, farmers experienced failed borewells and wastage of large investments. Under the current regime, strengthening institutional mechanisms through Bore Well Water Users Association

may relieve risk burdens, and state initiation must create such institutions for groundwater management. In addition, percolation tanks should be maintained to recharge groundwater.

Recently, the Telangana State Government introduced the Free Electricity program for farmers. Under this, the government will drill-free borewells for needy and eligible farmers to irrigate every acre of arable land. The borewell sites shall be identified scientifically by conducting ground water surveys before taking up the drilling. Any farmer without an existing borewell and with a contiguous land of 2.5 acres is eligible. If the farmer is not having contiguous land of 2.5 acres, a group may be formed and can apply for a free borewell. However, caution is needed to limit borewells to avoid exploitation, especially in drought-prone districts like Anantapur. The practice of providing free electricity may justify the populist undertone of the political agenda but it is often misconstrued as a panacea for farmer's problems. Instead, the government should channelise its efforts towards water-shed management, rainwater harvesting and micro-irrigation and ensure quality electricity supply to the farmer with necessary charges for resource use, be it canal water or electricity. Most importantly, a market-driven and economically viable option for resource use should be the pivot for policy actions.

### **Misusing the Free Electricity and Burden**

Some criticisms are also coming on free electricity for formers. About 10 Lakh illegal agriculture connections in Telangana re pushing the state's electricity distribution companies to the brink with losses mounting by the day. Due to this electricity consumption is not only going unaccounted but also burdening the distribution network severely. The losses owing to these illegal connections run into thousands of crores. There are 27.50 lakh agriculture connections under southern and northern distribution companies. As per the Telangana State Electricity Regulatory Commission (TSERC), there are another 10-lakh farm (illegal) connections across Telangana State. This needs to be stopped as unauthorized tapping leads to power tripping and puts a burden on infrastructure. Also, DISCOMS are facing the loss of revenue from the form of power subsidy. Lakhs of illegal connections were thriving by farmers from Godavari and Musi rivers by fixing motors and pumpsets. The Telangana Government pays Rs. 9000 to 10000 crores annually to DISCOMS towards subsidies to supply 24x7 free power to agriculture and poor domestic consumers. During the 2022-23 financial year, the Telangana Government has increased the subsidy to Rs. 11500 crores following an increase in free power connections.

### **Conclusion**

The Telangana state government has implemented a scheme called "Rythu Vedika" to provide free 24-hour electricity to farmers in the state. The scheme is aimed at promoting agriculture and increasing agricultural productivity.

The government has invested in the development of robust electricity infrastructure, including the installation of new power substations and transformers, to ensure that there is enough electricity available to meet the increased demand. The state also has a surplus of electricity, which enables the government to provide free electricity to farmers.

The government has also implemented a system called “smart meters” to monitor the electricity usage of individual farmers. These meters are linked to a centralized system, which allows the government to monitor electricity usage in real-time and prevent theft or misuse of electricity.

The government has funded the scheme through a combination of subsidies and increased taxes on other consumers of electricity. The state government believes that the benefits of the scheme, including increased agricultural productivity and enhanced living standards for farmers, will ultimately outweigh the costs.

Overall, the scheme is a significant investment in the agricultural sector in Telangana, and it remains to be seen whether it will be successful in achieving its goals. However, the government is committed to supporting the agricultural sector and improving the lives of farmers in the state.

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