

**BEFORE THE  
RAJASTHAN ELECTRICITY REGULATORY  
COMMISSION, JAIPUR**

**PETITION  
FOR  
APPROVAL  
OF  
INVESTMENT PLAN  
FOR  
FY 2019-20**

**FILED BY  
JAIPUR VIDYUT VITRAN NIGAM LIMITED, JAIPUR**

(A Govt. of Rajasthan Undertaking)

Regd. Office: VidyutBhawan, Janpath, Jaipur -302005

**BEFORE THE RAJASTHAN ELECTRICITY REGULATORY COMMISSION**

**JAIPUR**

Filing No.....

Case No.....

IN THE MATTER OF: A petition for approval of proposed investment plan under Section 181(zp) of Electricity Act, 2003 read with the Rajasthan Electricity Regulatory Commission (Investment Approval) Regulations, 2006.

AND

IN THE MATTER OF Jaipur VidyutVitran Nigam Ltd.  
Jaipur

THE HUMBLE APPLICANT ABOVE NAMED MOST RESPECTFULLY SHOWETH:

- A. The Petitioner 'Jaipur VidyutVitran Nigam Ltd. (JVVNL)' is a distribution licensee for distribution and supply of electricity for the areas notified by the Government of Rajasthan (GOR) under the Rajasthan Power Sector Reforms Transfer Scheme, 2000. From the erstwhile Rajasthan State Electricity Board, JVVNL has been allotted twelve numbers of the circles of Jaipur, Alwar, Bharatpur, Dholpur, Dausa, Karauli, Jhalawar, Baran, Kota, Bundi, SawaiMadhopur and Tonk.
- B. This is an application for approval of proposed investment plan for FY 2019-20, under Section 181(zp) of the Electricity Act 2003, read with the Rajasthan Electricity Regulatory Commission (Investment Approval) Regulations, 2006.
- C. Jaipur VidyutVitaran Nigam Limited (henceforth referred to as "JVVNL" or "Petitioner") is submitting its proposed Investment Plan Petition for the FY2019-20.
- D. Prayer to the Hon,ble Commission:-
  - a) To invoke the power conferred to it under section 181 of electricity Act-2003 to be read with RERC (Investment Approval) Regulation 2006 and to admit the petition seeking approval of investment plan for FY 2019-20.
  - b) To pass any order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.
  - c) To condone any error/omission and to give opportunity to rectify the same.
  - d) To permit the petitioner to make further submission, addition and alteration to this petition as may be necessary from time to time.

Deponent

Date:-

Place:- Jaipur

**Notes:**

In this Petition:

- All currency figures used in this Petition, unless specifically stated otherwise, are in Rs Cr and energy figures are in Million Units (MUs).
- For the purpose of presentation, figures given in the table are shown as rounded off. However for calculation purpose, actual figures have been considered.

**List of Abbreviations**

CERC	Central Electricity Regulatory Commission
Discom	Distribution Company
EA 2003	Electricity Act, 2003
FY	Financial Year
FY 18	Financial Year 2017-18
FY 19	Financial Year 2018-19
FY 20	Financial Year 2019-20
GoI	Government of India
GoR	Government of Rajasthan
JaipurDiscom, JVVNL	JaipurVidyut Vitran Nigam Ltd.
kVA	Kilo Volt Ampere
kW	Kilo Watt
kWh	Kilo Watt Hour or Unit
Kms	Kilometres
MVA	Mega Volt Ampere
PFC	Power Finance Corporation
R-APDRP	Restructured Accelerated Power Development and Reforms Programme
Regulations	RERC (Terms & Conditions for Determination of Tariff) Regulation, 2009
RERC, Commission	Rajasthan Electricity Regulatory Commission
REC	Rural Electrification Corporation
RGVY	Rajeev Gandhi GrameenVidyutikaranYojana
DDUGJY	DeendayalUpadhyaya Gram JyotiYojana
IPDS	Integrated Power Development Scheme
Rs.	Indian Rupees
MMSLVY	MukhyaMatriSabkeLiyeVidyutYojna
FIP	Feeder Improvement Programme
SIP	Sub-Station Improvement Programme
RSEB/Board	Rajasthan State Electricity Board
The licensee/utility	Jaipur Vidyut Vitran Nigam Ltd.

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## **A1: INTRODUCTION**

- 1.1 Section 181(zp) of the Electricity Act, 2003 empowers the State Regulatory Commissions (RERC in this case) to specify the terms and conditions for the determination of capital / additional capital investment as per provisions of the Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004. As per the provisions of the Act, while prescribing regulations for the licensees in the state, the State Commission would also be guided by the regulations prescribed by Central Electricity Regulatory Commission.
- 1.2 The Central Electricity Regulatory Commission has issued revised regulations on July 18, 2006. Based on revised regulations issued by CERC, Rajasthan Electricity Regulatory Commission (RERC) has revised the earlier RERC (Terms and Conditions for Determination of Tariff) Regulation 2004 and The Rajasthan Electricity Regulatory Commission (Investment Approval) Regulations,2006.
- 1.3 The following sections explain in detail the basis and forecasts of the following elements for FY 2019-20:
- Scheme wise provision for capital expenditure
  - Provision for Sub transmission and Distribution
  - Provision for Rural Electrification programme
  - Cost of new scheme and funding
- 1.4 In the proposed investment plan the annual plan allocation for the FY 2019-20 approved by Chairman Rajasthan Discoms for JVVNL is Rs. 1545.31 Cr.

## A2: JAIPUR DISCOM PROPOSED ANNUAL PLAN (2019-20)

### Proposed Annual Plan (FY 2019-20)

- 2.1 Jaipur Discom, Jaipur proposes an annual plan of Rs 1545.31 Cr for FY 2019-20. The resources for the plan provisions have also been proposed accordingly. The provision for capital expenditure to be incurred under planned activity during 2019-20 is as under:

**Table 1: Plan Outlay for FY 2019-20**

Name of scheme	FY 2019-20 (Rs. Cr.)
Sub- Transmission & Distribution	508.34
Rural Electrification Works	325.00
Rajiv Gandhi G.V. Yojana	30.00
R-APDRP-A	20.66
R-APDRP-B	5.39
Feeder Improvement Programme	50.00
DeendayalUpadhyaya Gram JyotiYojana (DDUGJY)	383.10
Integrated Power Development Scheme (IPDS)	50.69
Sobhagya	20.00
Smart metering	152.12
<b>TOTAL</b>	<b>1545.31</b>

- 2.2 The Physical targets for FY 2019-20 are as shown in the table below:

**Table 2: Physical targets for FY 2019-20**

S.No	Name of scheme	Units	FY 2019-20(Rs. Cr.)
<b>1</b>	<b>Sub- Transmission &amp; Distribution works</b>		
A	33 KV Lines	KM.	650
B	33 KV Sub stationsinc. Augmentation	Nos.	60
		MVA	413.25
C	Domestic Connections Rural	Nos.	160,000
D	Domestic Connections Urban	Nos.	40,000
<b>2</b>	<b>Rural Electrification</b>		
A	Ag. Pump Set RE	Nos.	20,000
<b>3</b>	<b>Rajiv Gandhi G.V. Yojana</b>		
A	Release of BPL Domestic Connection	Nos.	0

### Resources (FY 2019-20)

2.3 The source wise detail of funding for the proposed Capital Investment Plan is provided in the following table:

**Table 3: Mobilization of Plan Resources FY 2019-20**

S.no	Particulars	FY 2019-20 (Rs. Cr.)
1	Direct	
-	Rural Electrification Corporation	
	- Normal RE works including release of new connections	272.57
-	DDUGJY (12th Plan) Loan	2.52
	DDUGJY (12th Plan) Grant	27.00
	DDUGJY (Loan)	128.52
	DDUGJY (Grant)	229.86
-	R-APDRPA&B (Loan)	2.26
	R-APDRP A&B (Grant)	23.35
	IPDS (Loan)	17.01
	IPDS (Grant)	30.42
	ST&DD	426.33
	Sobhagya (Loan)	6.71
	Sobhagya (Grant)	12
	FIP	41.93
	AMI Smart Metering (Loan)	115.84
	AMI Smart Metering (Grant)	14
	<b>TOTAL (1)</b>	<b>1350.31</b>
2	Through State Govt.	
-	State Govt. Equity	195.00
	<b>Total (2)</b>	<b>195.00</b>
	<b>Total (1+2)</b>	<b>1545.31</b>

### Head Wise overall Plan for FY 2019-20

#### Head A: - Sub-Transmission & Distribution works:-

2.4 Various schemes were launched and completed in XII plan to strengthen the existing network. Accordingly, the system require further improvement and strengthening so that the system becomes robust and improved and thereby is able to provide a quality and reliable supply to the consumer with less number of interruptions. The proposed schemes are also aimed to intensify electrification in the Discom area. The proposed works/schemes will ensure expansion of the distribution network.

- 2.5 A provision of Rs508.34 Cr has been kept under the plan scheme for Sub-transmission and Distribution System Improvement scheme during FY 2019-20. This provision is meant for construction of 33 KV Sub- Stations and associated lines with inter connection of 11 KV line and release of service connection for its identified scheme, etc. for strengthening the Sub-Transmission & Distribution network to reduce the T&D losses & improve the quality & reliability of electric supply in jurisdiction of Jaipur Discom.
- 2.6 The physical targets of works under Sub Transmission and Distribution Head is shown in the table below:-

**Table 4: Physical Targets for Sub-transmission and Distribution works for FY 2019-20**

Particulars	Unit	Physical Targets
33/11KV Sub Stations.	MVA	413.25
33/11KV Sub Stations.	Nos.	60
33 KV Lines	Kms	650

- 2.7 The physical and financial progress report of the works under this head for the previous and current year has been submitted in attached prescribed Form-2 and 4 as prescribed by the Hon'ble. Commission.

*Procedure for identification, selection and implementation:-*

- 2.8 The schemes are identified on a need basis, with the objective to increase reliability of the network, to strengthen the network, and for improvement of the system to meet the demand growth; the circle planning department initiate the proposals along with the detailed technical due-diligence & after cost-benefit analysis of the proposed investment to be undertaken in the field. The proposals are being forwarded to the headquarters for approval. The planning division at headquarters selects the schemes on the basis of priority and according to the available sanction for the year from the government. All the schemes under Sub-Transmission and Distribution works, RE works are under Rs. 10 Cr. And the same are being implemented after administrative, technical and financial sanctions of the competent authority in accordance to delegation of powers (DOP).

Head B - Normal Rural Electrification (RE) work including release of new connection:-

- 2.9 Schemes under RE works are aimed at electrification, providing electricity connections to agricultural consumers.
- 2.10 A provision of Rs325.00 Cr has been kept for RE program during FY 2019-20.
- 2.11 Under this provision approximately 20,000 number of Agriculture connections shall be released. This will also help the Discom to clear the pending waiting list of Agriculture consumers in rural areas.

2.12 The benefits envisaged from execution of schemes under RE works include:

- Expansion of distribution network to supply power to rural areas.
- Energisation of wells with a view to increase water supply.

2.13 The physical and financial progress report of the works under this head for the previous and current year has been submitted in attached prescribed Form-2 and 4 as prescribed by the Hon'ble Commission.

Head C- DeendayalUpadhyaya Gram JyotiYojan (DDUGJY XII Plan)

2.14 A lump sum provision of Rs. 30.00 Cr has been kept for execution of works under this scheme.

2.15 The DDUGJY XII Plan plan include the creation of infrastructure required to electrify the identified villages, hamlets and to provide B.P.L and A.P.L connections.

2.16 The scheme provides for free of cost connection to all rural households living below poverty line.

2.17 Supply of good quality power would enable dispersal of small industries, khadi and village industries in the rural areas. It will also facilitate delivery of modern health care, education and application of information technologies. This is aimed at accelerating rural development, employment generation and poverty alleviation.

2.18 The benefits envisaged from execution of schemes under RGGVY include:

- Intensive village and hamlet electrification
- Release of connection to BPL and APL consumers

*Estimated Cost of Works*

2.19 The Plan provision for execution of works under this scheme shall approximate to Rs. 30.00 Cr during the FY 2019-20.

2.20 The physical and financial progress report of the works under this head for the previous and current year has been submitted in attached prescribed Form-2 and 4 as prescribed by the Hon'ble Commission.

Head D: - R-APDRP

R-APDRP works – Part – A For IT Implementation & SCADA

*Brief Description of Proposal*

- 2.21 Under the scheme works for developing IT enable activities such as SCADA etc. and strengthening of existing network have been taken up. As per the phasing the scheme for IT enable activities under Part-A of R-APDRP has been sanctioned by MOP, GOI. The work has started and it is expected that execution of scheme under R-APDRP Part-A shall be completed shortly.
- 2.22 R-APDRP- part A is further divided into two parts:
- Establish IT system in towns having population of more than 30,000.
  - Install SCADA in selected towns having population of more than 4 Lakhs & Annual input energy of 350 MU's
- 2.23 Benefits arising after execution:
- Strengthening of existing network with sustained loss reduction.
  - Enable accurate baseline data.
  - Process automation will be achieved.
  - Enable IT implementation
- 2.24 The major works that are being undertaken are Installation of hardware and software for data center, installation of hardware and software for Disaster recovery centre, establishment of customer care center at Discoms HQ's, installation of Modems for Meter Data Acquisition System etc.

*Estimated Cost of Works*

- 2.25 The estimated cost of RAPDRP-A works to be undertaken during FY 2019-20 is Rs. 20.66 Cr. The schemes will be funded under R-APDRP schemes from central government by PFC.
- 2.26 The physical and financial progress report of the works under this head for the previous and current year has been submitted in attached prescribed Form-2 and 4 as prescribed by the Hon'ble Commission.

R-APDRP- Part B

*Brief description about proposal:*

- 2.27 It is an initiative of government of India with focus on establishment of base line data; maintain reliability of supply and reduction of AT&C losses through strengthening & up gradation of sub transmission and distribution network. This scheme covers cities and towns of urban areas with population of more than 30,000.

- 2.28 Initially 25% funds will be provided as loan from GOI and balance is to be raised from financial institutions. Based on the criteria for reduction of AT&C losses below 15% and maintaining the same below that level, 10% of the total project cost of the town will be converted into grant every year & that is maximum of 50% of the total project cost of a town can be converted into grant if the losses of that town are brought below the 15% and are maintained for 5 years. The AT&C losses will be verified by a TPIEA-EA M/s. Voyant Solution Pvt. Ltd., Gurgaon who has been appointed as TPIEA-EA by PFC. Base line losses of 30 towns are already verified by TPIEA-EA
- 2.29 The approximate payment against the work completed during the year FY 2019-20 shall be Rs. 3.23 Cr. The work has been completed. The physical and financial progress report of the works under this head for the previous and current year has been submitted in attached prescribed Form-2 and 4 as prescribed by the Hon'ble Commission.

#### Head E: - Feeder Improvement Programme

##### *Brief description about proposal:*

- 2.30 A provision of Rs 50.00 Crores has been kept for execution of feeder Improvement Programme. Main features of this programme are as under-
1. Tightening of loose wires
  2. Straightening of tilted poles
  3. Insertion of Pole in long span for providing adequate ground clearance
  4. Reconditioning of distribution transformer single phase
  5. Reconditioning of distribution transformer three phase
  6. Replacement of obsolete AB cables
  7. Capacity argumentation of single phase DT's
  8. Earthing of single phase DT's
  9. Providing three phase systems in villages near to 33/11 KV S/s
  10. Tightening of loose AB cable
  11. Providing M-seal / repairing of unsealed cable points.
  12. Providing Insulated connectors
  13. Replacement of defective meters
  14. Transformer reading platform etc.
- 2.31 The physical and financial progress report of the works under this head for the previous and current year has been submitted in attached prescribed Form-2 and 4 as prescribed by the Hon'ble Commission.

#### Head F: - DeendayalUpadhyaya Gram JyotiYojan (DDUGJY New Schemes)

##### *Brief description about proposal:*

- 2.32 Government of India has approved the "DeendayalUpadhyaya Gram JyotiYojna" (DDUGJY) on 3<sup>rd</sup> December, 2014 for:

- i. Separation of agriculture and non-agriculture feeders facilitating 24 hours 3 phase supply to villages having population more than 3,000;
  - ii. Strengthening and augmentation of sub-transmission & distribution infrastructure in rural areas, including metering of distribution transformers/feeders/consumers.
  - iii. Rural electrification, as per CCEA approval dated 01.08.2013 for completion of the targets laid down under RGGVY for 12th and 13th Plans by carrying forward the approved outlay for RGGVY to DDUGJY.
- 2.33 The existing Rajiv Gandhi GrameenVidyutikaranYojana (RGGVY) has been subsumed in the new scheme and the unspent amount of RGGVY will be carried forward to DDUGJY. All Discoms are eligible for financial assistance under the scheme. Rural Electrification Corporation Limited (REC) will be the nodal agency for implementation of the scheme.
- 2.34 A provision of Rs383.10 Crores has been kept for the works to be carried out under this DDUGJY Scheme for Jaipur Discom in FY 2019-20.
- 2.35 The physical and financial progress report of the works under this head for the previous and current year has been submitted in attached prescribed Form-2 and 4 as prescribed by the Hon'ble Commission.

#### Head G: - Integrated Power Development Scheme (IPDS)

##### *Brief description about proposal:*

- 2.36 Government of India launched the Integrated Power Development Scheme (IPDS) to extend financial assistance against capital expenditure to address the gaps in sub transmission & distribution network and metering in urban areas to supplement the resources of DISCOMs/Power Dept.
- 2.37 The scheme for urban areas comprises of the following components:
- a) Strengthening of Sub-transmission and Distribution network in urban areas including provisioning of solar panels on Govt. buildings including Net-Metering.
  - b) Metering of feeders / distribution transformers / consumers in urban areas and,
  - c) IT enablement of distribution sector and strengthening of distribution network, as per CCEA approval dated 21.06.2013 for completion of the targets laid down under R-APDRP for 12th and 13th Plans by subsuming R-APDRP in IPDS and carrying forward the approved outlay for RAPDRP to IPDS.
- 2.38 The projects under the scheme shall be formulated for urban areas (Statutory Towns) only and will cover works relating to strengthening of sub-transmission & distribution network, including provisioning of solar panels on Govt. buildings including Net-metering, metering of feeders /distribution transformers / consumers and IT enablement of distribution sector. Scope of IT enablement extended to the statutory towns having population more 5000 as per Census 2011.

- 2.39 A provision of Rs50.69 Crores has been kept for the works to be carried out under this IPDS Scheme for Jaipur Discom in FY 2019-20.
- 2.40 The physical and financial progress report of the works under this head for the previous and current year has been submitted in attached prescribed Form-2 and 4 as prescribed by the Hon'ble Commission.

### **Head H: - Sobhagya**

#### ***Brief description about proposal:***

- 2.41 Sobhagya was launched by the PM in September 2017. Under this scheme free electricity connections to all households (both APL and poor families) in rural areas and poor families in urban areas are provided. REC has been designated as its nodal agency. Scope of the scheme:
- a) Providing last mile connectivity and electricity connections to all un-electrified households in rural areas
  - b) Providing Solar Photovoltaic (SPV) based standalone system for un-electrified households located in remote and inaccessible villages/habitations, where grid extension is not feasible or cost-effective.
  - c) Providing last mile connectivity and electricity connections to all remaining economically poor un-electrified households in urban areas. Non-poor urban households are excluded from this scheme
- 2.42 A provision of Rs 20.00 Crores has been kept for the works to be carried out under this Sobhagya Scheme for Jaipur Discom in FY 2019-20

### **Head I: - Smart Metering**

#### ***Brief description about proposal:***

- 2.43 Advanced Metering Infrastructure, also referred as “Smart Metering” is the combination of the electronic meters with two-way communications technology for information, monitor, and control. AMI initiative is targeted to achieve:
- a) Operational Efficiencies: improved reliability and lower operating costs in areas such as meter reading, distribution system maintenance, and outage management
  - b) Protection of Revenue: Reduced revenue loss due to the theft of power directly from the distribution grid and tampering with the meters, as well as revenue “leakage” in some customer processes
  - c) Increased Cash Flow: rolling out monthly billing cycle

- d) Improvement in Customer Service: provide real-time and detailed information on consumption and cost, and enable better customer communication around outages.
- e) Conservation and Energy Efficiency: energy and capacity savings achieved through time-based rates, effective communication and incentives to customers, customer direct control of energy use, and grid operational improvements

2.44 A provision of Rs 152.13.00 Cr has been kept for the works to be carried out under this AMI Smart Metering for Jaipur Discom in FY 2019-20

**A3: PRAYER TO THE HONOURABLE COMMISSION-**

- a) To invoke the power conferred to it under section 181 of electricity Act-2003 to be read with RERC (Investment Approval) Regulation 2006 and to admit the petition seeking approval of investment plan for FY 2019-20.
- b) To pass any order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.
- c) To condone any error/omission, delay and to give opportunity to rectify the same in submission.
- d) To permit the petitioner to make further submission, addition and alteration to this petition as may be necessary from time to time.

**Annexure –A**

**Achievements of physical target in FY 2018-19 (Up to September, 18)**

<b>Plan Works</b>	<b>Units</b>	<b>Target</b>	<b>Achieved</b>
<b>1)Sub Transmission and Distribution</b>			
1.1) 33 KV Lines	Kms	295.00	328.6
1.2) 33/11 KV S/S	Nos	35	26.00
1.3) 33/11 KV S/S (New+Aug)	MVA	239.35	228.95
<b>2) Rural Electrification Works</b>			
2.1) Agriculture Pump Sets	Nos	64,370.00	17,275.00
2.2) HarizanBasties	Nos	0.00	0.00
<b>3) RGGVY/AREP/MMSLY</b>			
3.1) Villages Electrified (Along with REC)	Nos	0.00	0.00
3.3) BPL (As per RGGVY)	Nos	-	19636.00

**Annexure –B**

**Expenditure against the financial plan of FY 2018-19 (Rs Cr) (Up to September'18)**

<b>Plan Works</b>	<b>Plan (Revised)</b>	<b>Expenditure Incurred</b>
1) Sub transmission and Distribution	370.38	147.73
2) Rural Electrification Works	1046.01	716.92
3) R.G.G.V.Y	137.75	22.74
4) R-APDRP Part A	119.55	0.00
5) R-APDRP Part B	37.55	3.95
6) Feeder Improvement Programme (FIP)	44.70	0.00
7) Sub Station Improvement Programme (SIP)	0.00	0.00
8) DDUGJY	643.98	246.40
9) IPDS	302.03	133.06
10) Saubhagya	90.70	<b>0.00</b>
11) Implementation of AMI/Smart Metering	81.92	<b>0.00</b>
<b>Total</b>	<b>2,874.57</b>	<b>1,270.80</b>