

AP East

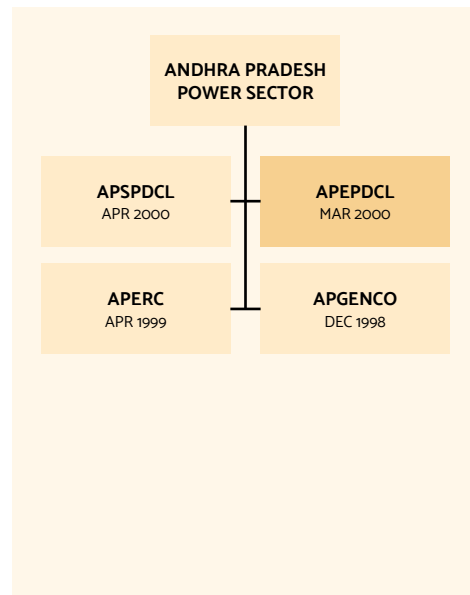
Andhra Pradesh Eastern Power Distribution Company Limited

APEPDCL

Visakhapatnam
Andhra Pradesh

APEPDCL is one of the two electricity distribution utilities of Andhra Pradesh. It is engaged in business in five districts: Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, and West Godavari. Established in March 2000, the utility's vision is "To ensure reliable, efficient, and sufficient power supply to consumers and ensure a balanced all-round development of power infrastructure in all circles of operation."

State Power Sector Structure

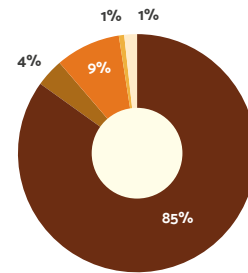


Coverage

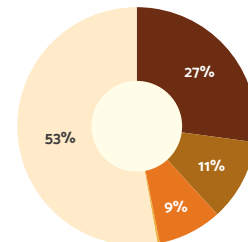
Coverage	APEPDCL	Surveyed Utilities Avg
Districts	5	12
Revenue Villages	10,958	15,321
Circles	5	16
Divisions	-	53
Subdivisions	-	156

Customer Profile

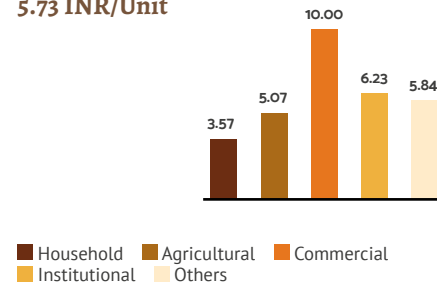
CUSTOMER BASE
59.76 lakhs



ANNUAL ENERGY SALES
19,678 MU



AVERAGE BILLING RATE
5.73 INR/Unit



Business Profile

Annual revenues (INR crore)	11,005
State government subsidy as share of revenue	2.06%
Profit/loss (INR crore)	-629
Peak demand (MW)	3,359
Number of employees	7,559

Infrastructure Profile

Substation capacity (MVA)	7,126
DT capacity (MVA)	11,233
Number of 11 kV feeders	3,462
HT distribution lines (km)	53,105
LT distribution lines (km)	82,613

Service & Efficiency Indicators

Average daily supply hours	20
Average electricity supplied/customer (kWh/year)	3,683
Employees per 1,000 customers	1.26
ACS-ARR gap (INR/unit)	0.71
AT&C loss	18.27%
Average DT failure rate	6.43%

Customer Services

- Average number of power cuts per customer per month was 9, percentage of complaints resolved was 100%
- 48% of customers reported paying bills at a utility office
- Utility customer initiatives include **Any Time Payment (ATP)** machines installed across towns for easy bill payments anytime throughout the year

Performance Highlights

- HT/LT connection and load enhancement process has been made available online through a customer services portal
- District-wise single-window counters for HT industrial connections and load enhancement requests; added alternate/double circuits supply for most substations
- Urja Mitra application for scheduled/unscheduled outages is utilized
- Strict monitoring of duration and frequency of power cuts from junior to managing director level
- Teleconference on the first Monday of every month at section level
- 4% of DT spares are available in stores at any given time; this takes care of the 50% requirement for yearly maintenance spares

AP South

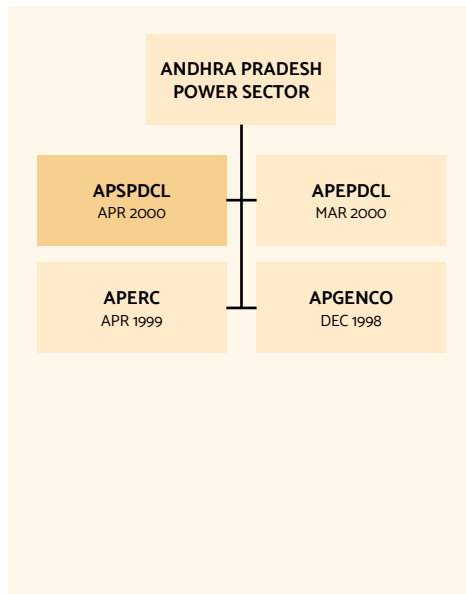
Andhra Pradesh Southern Power Distribution Company Limited

APSPDCL

Tirupati
Andhra Pradesh

APSPDCL is one of the two electricity distribution utilities of Andhra Pradesh. It is engaged in business in eight districts (Guntur, Krishna, Prakasam, Nellore, Kadapa, Kurnool, Ananthapur, and Chittoor) spread over 1,60,205 square kilometers. Established in April 2000, the utility's vision is "To create an organization that is profitable, viable, responsive, serving the needs of the customer, suppliers and employees."

State Power Sector Structure

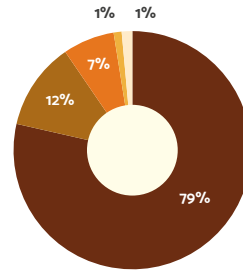


Coverage

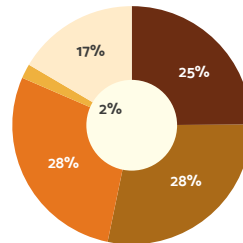
Coverage	APSPDCL	Surveyed Utilities Avg
Districts	8	12
Revenue Villages	8,010	15,321
Circles	9	16
Divisions	48	53
Subdivisions	171	156

Customer Profile

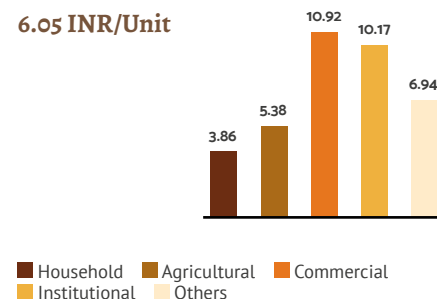
CUSTOMER BASE
1.23 crore



ANNUAL ENERGY SALES
34,889 MU



AVERAGE BILLING RATE
6.05 INR/Unit



Business Profile

Annual revenues (INR crore)	22,876
State government subsidy as share of revenue	4.47%
Profit/loss (INR crore)	-938
Peak demand (MW)	6,468
Number of employees	16,085

Infrastructure Profile

Substation capacity (MVA)	14,297
DT capacity (MVA)	1,809,738
Number of 11 kV feeders	8,465
HT distribution lines (km)	208,788
LT distribution lines (km)	261,065

Service & Efficiency Indicators

Average daily supply hours	21
Average electricity supplied/customer (kWh/year)	2,794
Employees per 1,000 customers	1.31
ACS-ARR gap (INR/unit)	0.25
AT&C loss	12.53%
Average DT failure rate	5.32%

Customer Services

- Average number of power cuts per customer per month was 23, percentage of complaints resolved was 79%
- 51% of customers reported paying bills at utility office
- Establishment of **Mee-seva Service Centers**; every process is now online with strict performance KPIs
- Citizen charter that details service areas, their corresponding standards of performance, etc.

Performance Highlights

- HT/LT connection and load enhancement process has been made available online through a customer services portal
- District-wise single-window counters for HT industrial connections and load enhancement requests
- Urja Mitra application for scheduled/unscheduled outages is utilized
- Strict monitoring of duration and frequency of power cuts from junior to managing director level
- Teleconference on the first Monday of every month at section level
- 4% of DT spares are available in stores at any given time; this number takes care of the 50% requirement for yearly maintenance spares

Assam

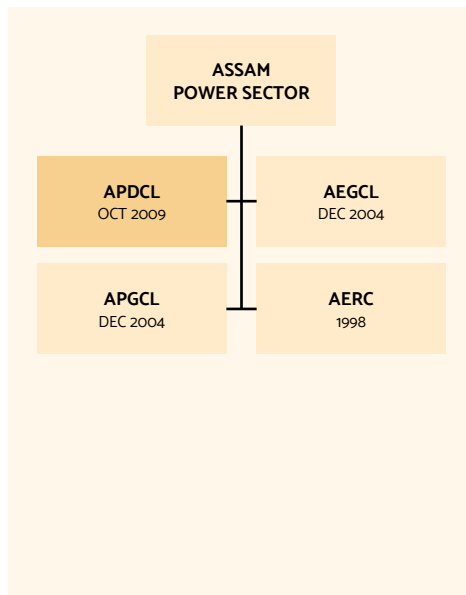
Assam Power Distribution Company Limited

APDCL

Guwahati
Assam

APDCL is the electricity distribution utility of Assam and is engaged in business in the whole state, serving a combined population of 3 crore spread over 78,438 square kilometers. Established in October 2009, the utility's vision is "To be the catalyst for holistic growth of the state of Assam by powering agriculture and industry; lighting homes - rural and urban; and generating internal resources for continually improving technology and delivery system to induce customer delight."

State Power Sector Structure

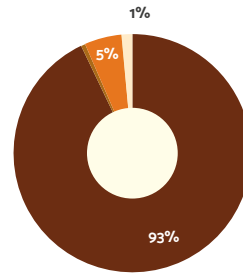


Coverage

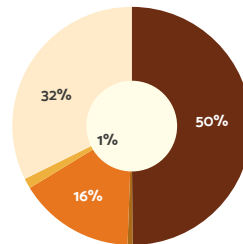
Coverage	APDCL	Surveyed Utilities Avg
Districts	33	12
Revenue Villages	26,935	15,321
Circles	19	16
Divisions	45	53
Subdivisions	158	156

Customer Profile

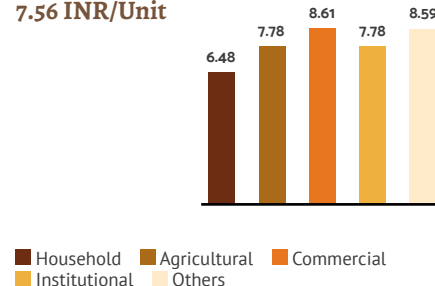
CUSTOMER BASE
54.22 lakhs



ANNUAL ENERGY SALES
6,968 MU



AVERAGE BILLING RATE
7.56 INR/Unit



Business Profile

Annual revenues (INR crore)	5,269
State government subsidy as share of revenue	4.97%
Profit/loss (INR crore)	21
Peak demand (MW)	1,894
Number of employees	9,597

Infrastructure Profile

Substation capacity (MVA)	11,000
DT capacity (MVA)	5,497
Number of 11 kV feeders	1,550
HT distribution lines (km)	96,719
LT distribution lines (km)	313,020

Service & Efficiency Indicators

Average daily supply hours	15
Average electricity supplied/customer (kWh/year)	1,804
Employees per 1,000 customers	1.77
ACS-ARR gap (INR/unit)	0.29
AT&C loss	19.17%
Average DT failure rate	5.28%

Customer Services

- Average number of power cuts per customer per month was 90, percentage of complaints resolved was 98%
- 76% of customers reported paying bills at utility office
- On the billing front, the utility provides doorstep spot billing and bill collection at collection counters, online payment collection (net banking, Paytm, etc.), bill collection by mobile vans, and bill collection at revenue collection camp

Performance Highlights

- Off-grid connectivity provided for remote areas and villages
- Aerial bunched and underground cabling in progress for theft reduction
- Data monitoring of the load profile is carried out in substation level
- Network strengthening projects: dedicated network for industrial loads, utilization of ADB loan for improving the HT:LT ratio, recently floated EOI for system strengthening with loan from Asian Infrastructure Investment Bank
- Complaints are received through SMS-based DT complaint system, Urja Mitra app, electricity distribution utility websites, respective cell/email IDs, and a dedicated WhatsApp number for theft complaints

Bihar North

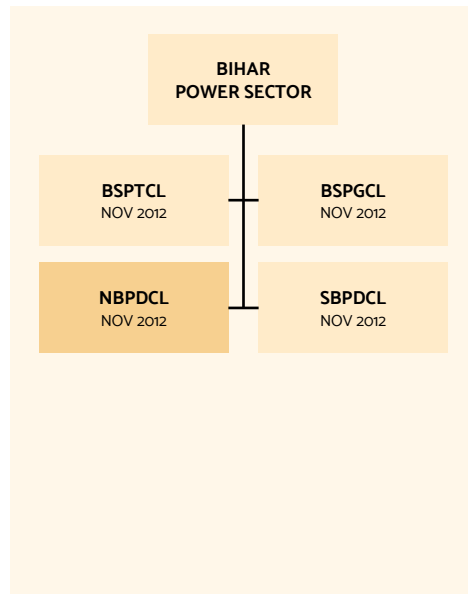
North Bihar Power Distribution Company Limited

NBPDCL

Patna
Bihar

NBPDCL is one of the two electricity distribution utilities of Bihar. It is engaged in business in 21 districts: Araria, Begusarai, Darbhanga, East Champaran, Gopalganj, Katihar, Khagaria, Kishanganj, Madhepura, Madhubani, Muzaffarpur, Purnea, Saharsa, Samastipur, Saran, Sheohar, Sitamarhi, Siwan, Supaul, Vaishali, and West Champaran. Established in November 2012, the utility's vision is "To ensure reliable quality power to its customers at competitive prices."

State Power Sector Structure

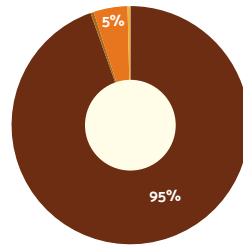


Coverage

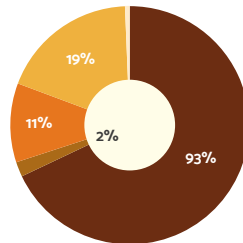
Coverage	NBPDCL	Surveyed Utilities Avg
Districts	21	12
Revenue Villages	23,284	15,321
Circles	9	16
Divisions	34	53
Subdivisions	107	156

Customer Profile

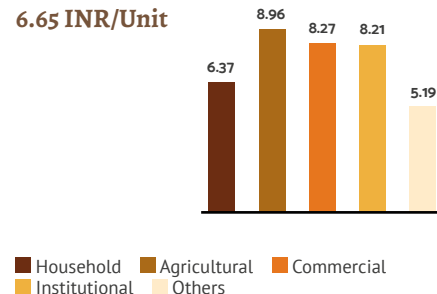
CUSTOMER BASE
93.03 lakhs



ANNUAL ENERGY SALES
9,362 MU



AVERAGE BILLING RATE
6.65 INR/Unit



Business Profile

Annual revenues (INR crore)	4,230
State government subsidy as share of revenue	54.65%
Profit/loss (INR crore)	0.00
Peak demand (MW)	2,443
Number of employees	10,343

Infrastructure Profile

Substation capacity (MVA)	6,482
DT capacity (MVA)	5,772
Number of 11 kV feeders	1,639
HT distribution lines (km)	69,583
LT distribution lines (km)	123,921

Service & Efficiency Indicators

Average daily supply hours	17
Average electricity supplied/customer (kWh/year)	1,341
Employees per 1,000 customers	1.11
ACS-ARR gap (INR/unit)	0.17
AT&C loss	26.76%
Average DT failure rate	6.00%

Customer Services

- Average number of power cuts per customer per month was 238, percentage of complaints resolved was 90%
- 29% of customers reported paying bills at utility office
- Extensive use of mobile bill collection vans, encouraging digital modes of bill payment such as payment banks, e-Wallets, mobile apps, and an online portal with discounts and cashbacks

Performance Highlights

- Processing new connection applications through mobile application, organizing customer application camps on a routine basis across villages
- Taking assistance of village admin and local MLAs to resolve right-of-way issues during execution works
- Reconductoring works amounting to INR 3300 cr being carried out for LT/HT network improvement
- Conversion of single circuit lines to double circuit lines in some of the critical overloaded feeders
- New grid and power substations were built to improve voltage profile near newly created load centers
- Engagement of rural revenue franchisee for facilitating doorstep bill delivery and cash collection
- Engagement of arrear collection agencies for improving collection efficiency, organizing collection camps in villages, etc.

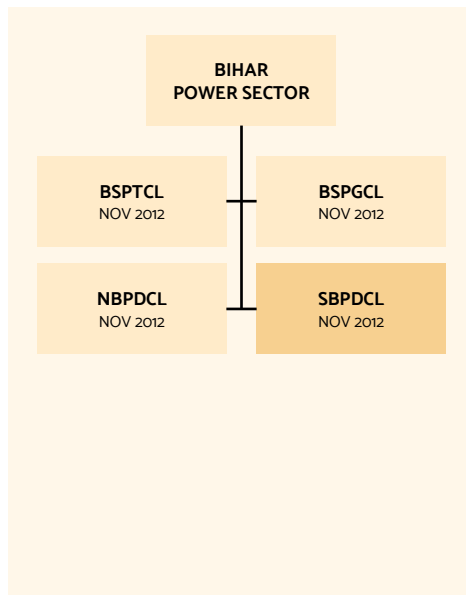
Bihar South

South Bihar Power Distribution Company Limited

Patna
Bihar

SBPDCL

State Power Sector Structure

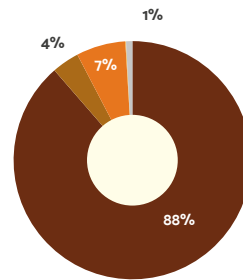


Coverage

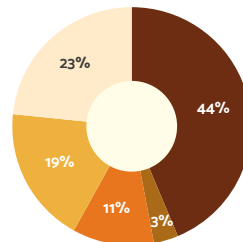
Coverage	SBPDCL	Surveyed Utilities Avg
Districts	17	12
Revenue Villages	22,126	15,321
Circles	9	16
Divisions	35	53
Subdivisions	106	156

Customer Profile

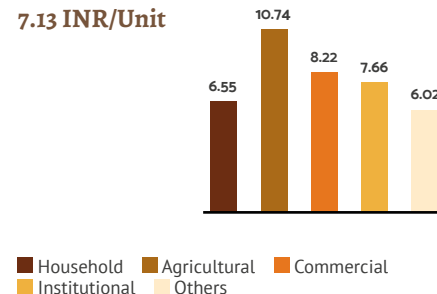
CUSTOMER BASE
54.00 lakhs



ANNUAL ENERGY SALES
9,503 MU



AVERAGE BILLING RATE
7.13 INR/Unit



SBPDCL is one of the two electricity distribution utilities of Bihar. It is engaged in business in 17 districts: Arwal, Aurangabad, Banka, Bhagalpur, Bhojpur, Buxar, Gaya, Jahanabad, Jamui, Kaimur, Lakhisarai, Munger, Nalanda, Nawada, Patna, Rohtas, and Shiekhpora. Established in November 2012, the utility's vision is "To ensure reliable quality power to its customers at competitive prices."

Business Profile

Annual revenues (INR crore)	4,842
State government subsidy as share of revenue	57.71%
Profit/loss (INR crore)	-2,748
Peak demand (MW)	2,729
Number of employees	10,344

Infrastructure Profile

Substation capacity (MVA)	7,258
DT capacity (MVA)	6,387
Number of 11 kV feeders	1,717
HT distribution lines (km)	7,668
LT distribution lines (km)	43,382

Service & Efficiency Indicators

Average daily supply hours	16
Average electricity supplied/customer (kWh/year)	2,895
Employees per 1,000 customers	1.92
ACS-ARR gap (INR/unit)	0.60
AT&C loss	27.75%
Average DT failure rate	6.45%

Customer Services

- Average number of power cuts per customer per month was **106**, percentage of complaints resolved was **89%**
- 51%** of customers reported paying bills at utility office
- Extensive use of mobile bill collection vans and encouraging digital modes of bill payment such as payment banks, e-wallets, mobile apps, and an online portal with discounts and cashbacks

Performance Highlights

- Processing new connection applications through mobile application, organizing customer application camps on routine basis across villages
- Taking assistance of village admin and local MLAs to resolve right-of-way issues during execution works
- Reconductoring works amounting to INR 3300 cr being carried out for LT/HT network improvement
- Conversion of single circuit lines to double circuit lines in some of the critical overloaded feeders
- To improve voltage profile, new grid and power substations were created near the newly created load centers
- Engagement of rural revenue franchisee for facilitating doorstep bill delivery and cash collection
- Engagement of arrear collection agencies for improving collection efficiency, organizing collection camps in villages, etc.

Gujarat Central

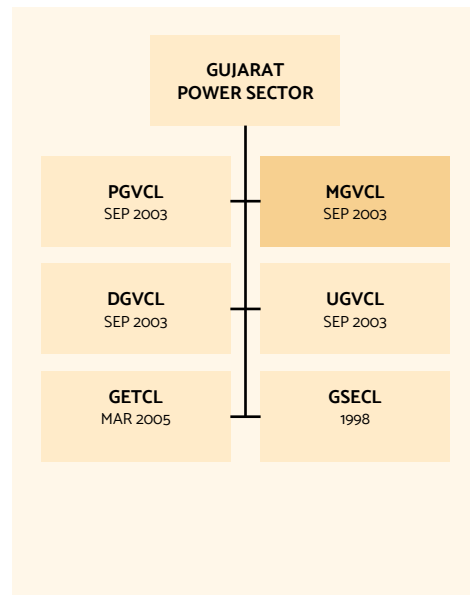
Madhya Gujarat Vij Company Limited

MGVCL

Vadodara
Gujarat

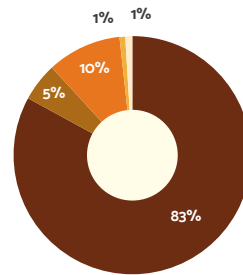
MGVCL is one of the four electricity distribution utilities of Gujarat. It is engaged in business in the central districts of Gujarat (Anand, Vadodara, Dahod, Panchmahal, Kheda, Chota Udaipur, and Mahisagar), serving a combined population of 1.3 crore spread over 24,000 square kilometers. Established in September 2003, the utility's vision is "To distribute and maintain reliable electric power, satisfy all its customers through excellence in service by way of safe and sturdy distribution network with dedication to continual improvement in all sphere of activities."

State Power Sector Structure

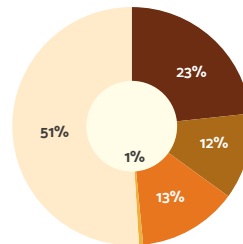


Customer Profile

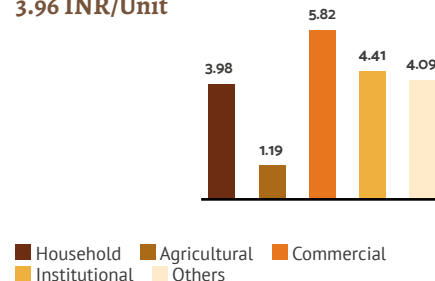
CUSTOMER BASE
31.72 lakhs



ANNUAL ENERGY SALES
11,262 MU



AVERAGE BILLING RATE
3.96 INR/Unit



Coverage

Coverage	MGVCL	Surveyed Utilities Avg
Districts	7	12
Revenue Villages	4,404	13,143
Circles	5	16
Divisions	18	53
Subdivisions	113	156

Business Profile

Annual revenues (INR crore)	5,531
State government subsidy as share of revenue	8.61%
Profit/loss (INR crore)	93
Peak demand (MW)	2,027
Number of employees	6,483

Infrastructure Profile

Substation capacity (MVA)	25,100
DT capacity (MVA)	5,565
Number of 11 kV feeders	1,603
HT distribution lines (km)	62,340
LT distribution lines (km)	71,698

Service & Efficiency Indicators

Average daily supply hours	20
Average electricity supplied/customer (kWh/year)	3,907
Employees per 1,000 customers	2.04
ACS-ARR gap (INR/unit)	-0.08
AT&C loss	9.12%
Average DT failure rate	3.42%

Customer Services

- Average number of power cuts per customer per month was 7, percentage of complaints resolved was 100%
- 96% of customers reported paying bills at utility office
- On the billing front, the utility has enabled multiple options including online and SMS delivered bills, combined with flexible payment options such as doorstep collections and online payments

Performance Highlights

- Simple process for application of new connection under "Ease of Doing Business" through both physical and online mode
- Peak amperes of transformers are recorded in afternoon and night
- Customer survey is conducted two times a year for HT customers and yearly for LT customers
- Augmentation of existing overloaded substations and bifurcation of feeders and reduction in feeder length and LT line
- SMS sent to customer mobile numbers for shutdown and customer care centers in every sub-division office
- Pre-monsoon and post-monsoon patrolling carried out
- Monitoring of high loss feeders and surprise checking of HT and LT customers

Gujarat North

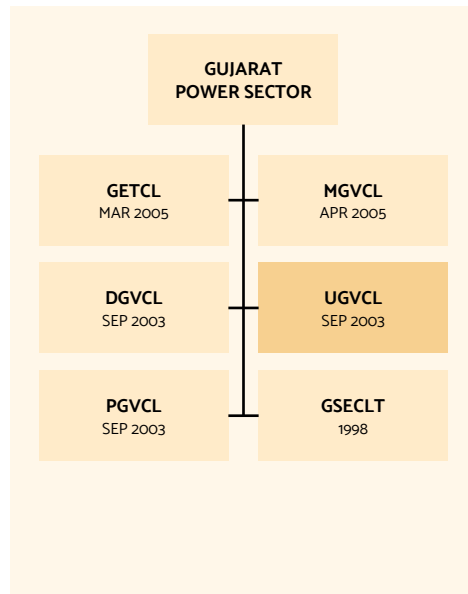
Uttar Gujarat Vij Company Limited

UGVCL

Mehsana
Gujarat

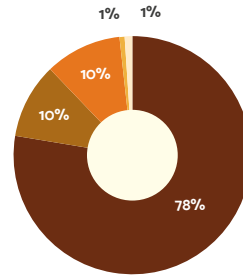
UGVCL is one of the four electricity distribution utilities of Gujarat. It is engaged in business in the northern districts of Gujarat (Banaskantha, Patan, Mehsana, Sabarkantha, Gandhinagar, and Amdavad), serving a combined population of 1.75 crore spread over 50,000 square kilometers. Established in September 2003, the utility's vision is "To be a world-class electricity utility, striving for the social and economic development of our region."

State Power Sector Structure

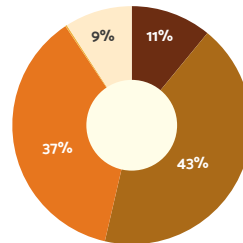


Customer Profile

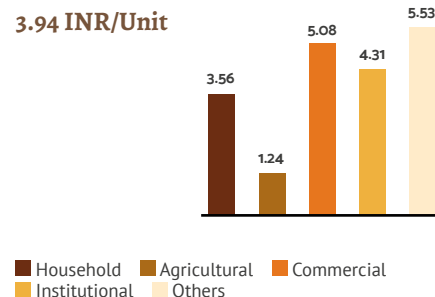
CUSTOMER BASE
35.62 lakhs



ANNUAL ENERGY SALES
22,906 MU



AVERAGE BILLING RATE
3.94 INR/Unit



Coverage

Coverage	UGVCL	Surveyed Utilities Avg
Districts	6	12
Revenue Villages	4,501	15,321
Circles	12	16
Divisions	21	53
Subdivisions	129	156

Business Profile

Annual revenues (INR crore)	9,960
State government subsidy as share of revenue	35.4%
Profit/loss (INR crore)	101.32
Peak demand (MW)	4,274
Number of employees	6,937

Infrastructure Profile

Substation capacity (MVA)	26,093
DT capacity (MVA)	13,979
Number of 11 kV feeders	4,109
HT distribution lines (km)	1,07,424
LT distribution lines (km)	73,498

Service & Efficiency Indicators

Average daily supply hours	21 hrs
Average electricity supplied/customer (kWh/year)	7,279
Employees per 1,000 customers	1.95
ACS-ARR gap (INR/unit)	(0.03)
AT&C loss	10%
Average DT failure rate	5.6%

Customer Services

- Average number of power cuts per customer per month was 4, percentage of complaints resolved was 100%
- 88% of customers reported paying bills at utility office
- On the billing front, the utility has enabled multiple options including online and SMS delivered bills, combined with flexible payment options such as doorstep collections and online payments

Performance Highlights

- Winner of multiple national awards, including a Gold Shield and a Bronze Shield
- Pioneer for special design transformers, accredited with ISO 9001:2008 Standard for Management and Enhancement of Electricity Distribution Operations, and its Hi-Tech Meter Testing Laboratory is accredited with NABTCL, first among state electricity distribution utilities
- One of the highest HT:LT ratios (1.5) in the country among surveyed utilities
- One of the lowest rates of power cuts among all surveyed utilities
- The utility is typically in the first or second quartile on all parameters of capacity to deliver, except for performance on theft reported per 1,000 customers

Gujarat South

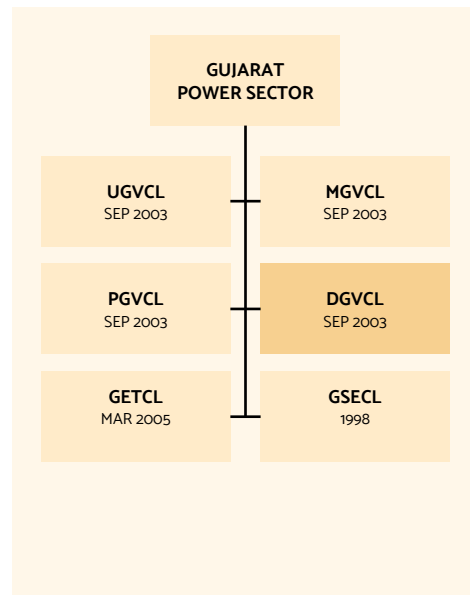
Dakshin Gujarat Vij Company Limited

DGVCL

Surat
Gujarat

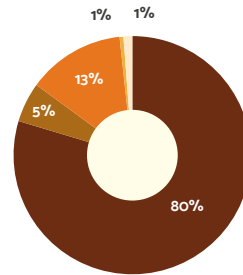
DGVCL is one of the four electricity distribution utilities of Gujarat. It is engaged in business in the southern districts of Gujarat (Bharuch, Narmada, Surat [except part of Surat City], Tapi, Dangs, Navsari, and Valsad), serving a combined population of 1.3 crore spread over 23,300 square kilometers. Established in September 2003, the utility's vision is "Customer satisfaction through service excellence."

State Power Sector Structure

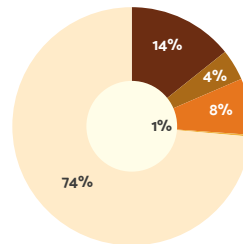


Customer Profile

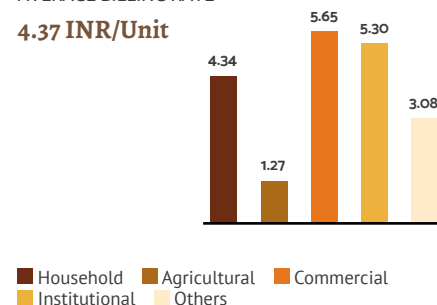
CUSTOMER BASE
32.3 lakhs



ANNUAL ENERGY SALES
21,258 MU



AVERAGE BILLING RATE
4.37 INR/Unit



Coverage

Coverage	DGVCL	Surveyed Utilities Avg
Districts	7	12
Revenue Villages	3,461	15,321
Circles	4	16
Divisions	19	53
Subdivisions	133	156

Business Profile

Annual revenues (INR crore)	11,647
State government subsidy as share of revenue	3.03%
Profit/loss (INR crore)	94.5
Peak demand (MW)	3,277
Number of employees	6,901

Infrastructure Profile

Substation capacity (MVA)	19,331
DT capacity (MVA)	8,782
Number of 11 kV feeders	1,332
HT distribution lines (km)	56,053
LT distribution lines (km)	52,364

Service & Efficiency Indicators

Average daily supply hours	20
Average electricity supplied/customer (kWh/year)	7,288
Employees per 1,000 customers	2.14
ACS-ARR gap (INR/unit)	-0.11
AT&C loss	7.34%
Average DT failure rate	4.94%

Customer Services

- Average number of power cuts per customer per month was 5, percentage of complaints resolved was 100%
- 93% of customers reported paying bills at utility office
- On the billing front, the utility has enabled multiple options including online bill payment and a mobile app, combined with flexible payment options such as cash cards and e-wallets

Performance Highlights

- Incorporated innovative initiatives for operational and customer awareness, such as portable power factor testing kit, battery-operated handy tree cutters, mobile collection van for old debit arrears areas, etc.
- Single-window help desk and bill payment facility at sub-divisional level
- Approximately 8,200 solar connections issued as off-grid solutions
- Regular maintenance carried out through line patrolling
- Peak amperes of transformers are recorded afternoon and night to monitor the loading on the transformers
- R&D team working on drone-based pilot project on monitoring for hot points (transformers) / flickering at night hours
- Utility's Apna Dwaar in which officials from DGVCL visit customer premises regularly

Gujarat West

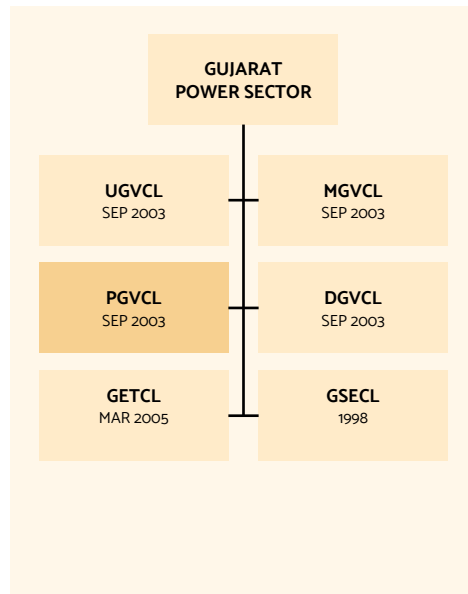
Paschim Gujarat Vij Company Limited

PGVCL

Jamnagar
Gujarat

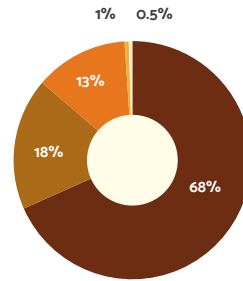
PGVCL is one of the four electricity distribution utilities of Gujarat. It is engaged in business in the western districts of Gujarat (Rajkot, Jamnagar, Junagadh, Porbandar, Bhuj, Bhavnagar, Surendranagar, Amreli, Botad, Morbi, Devbhumi Dwarka, and Gir Somnath), serving a combined population of 1.75 crore spread around 1,00,000 square kilometers. Established in September 2003, the utility's vision is "Value creation in the society and in the community in which it operates, through its services, conduct and initiatives, to promote sustained growth for the society and community."

State Power Sector Structure

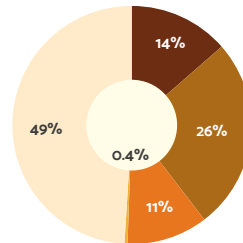


Customer Profile

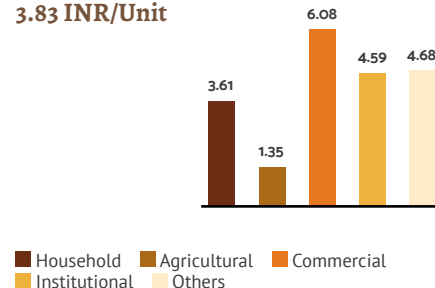
CUSTOMER BASE
52.83 lakhs



ANNUAL ENERGY SALES
29,657 MU



AVERAGE BILLING RATE
3.83 INR/Unit



Business Profile

Annual revenues (INR crore)	14,267
State government subsidy as share of revenue	19.36%
Profit/loss (INR crore)	137
Peak demand (MW)	6,499
Number of employees	14,652

Infrastructure Profile

Substation capacity (MVA)	51,833
DT capacity (MVA)	20,334
Number of 11 kV feeders	7,696
HT distribution lines (km)	207,126
LT distribution lines (km)	120,579

Service & Efficiency Indicators

Average daily supply hours	21
Average electricity supplied/customer (kWh/year)	6,925
Employees per 1,000 customers	2.77
ACS-ARR gap (INR/unit)	-0.01
AT&C loss	18.95%
Average DT failure rate	8.55%

Customer Services

- Average number of power cuts per customer per month was **30**, percentage of complaints resolved was **90%**
- 98%** of customers reported paying bills at utility office
- SMS sent** to customer mobile numbers for shutdown and customer care centers in every sub-division office
- Customer care centers** in every sub-division office

Performance Highlights

- Only two documents required: ID proof and land ownership record; SOPs available for providing the new connections within the given time (i.e. seven days, etc.)
- Augmentation of existing overloaded substations and bifurcation of feeders and reduction in feeder length and LT line
- Feeder/line patrolling and peak amperes of transformers recorded afternoon and night to monitor loading

Coverage

Coverage	PGVCL	Surveyed Utilities Avg
Districts	12	12
Revenue Villages	5,707	15,321
Circles	12	16
Divisions	45	53
Subdivisions	246	156

Karnataka Bangalore

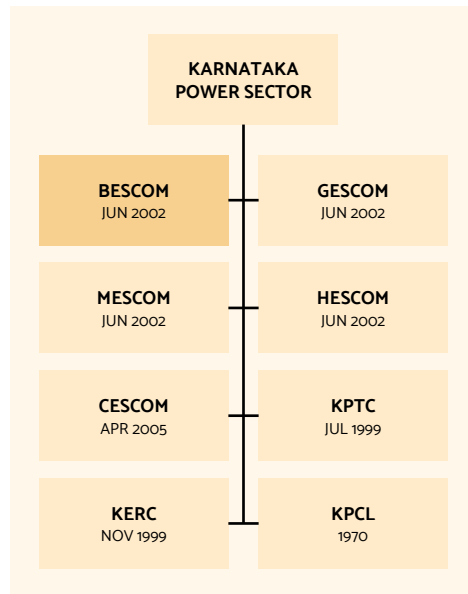
Bangalore Electricity Supply Company Limited

BESCOM

Bengaluru
Karnataka

BESCOM is one of the five electricity distribution utilities of Karnataka. It is engaged in business in eight districts (Bangalore Urban, Bangalore Rural, Chikkaballapura, Kolar, Davanagere, Tumkur, Chitradurga, and Ramanagara), serving a combined population of 2.1 crore spread over 41,092 square kilometers. Established in June 2002, the utility's vision is "To be number one in customer satisfaction in South Asia in power distribution."

State Power Sector Structure

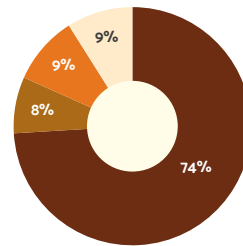


Coverage

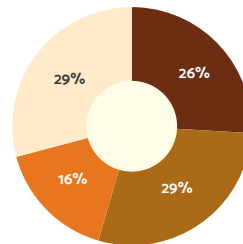
Coverage	BESCOM	Surveyed Utilities Avg
Districts	8	12
Revenue Villages	NA	15,321
Circles	9	16
Divisions	32	53
Subdivisions	147	156

Customer Profile

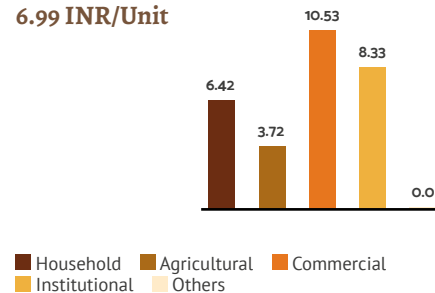
CUSTOMER BASE
1.18 crore



ANNUAL ENERGY SALES
27,736 MU



AVERAGE BILLING RATE
6.99 INR/Unit



Business Profile

Annual revenues (INR crore)	19,377
State government subsidy as share of revenue	11.71%
Profit/loss (INR crore)	87.5
Peak demand (MW)	6,858
Number of employees	15,347

Infrastructure Profile

Substation capacity (MVA)	6,000
DT capacity (MVA)	153
Number of 11 kV feeders	5,184
HT distribution lines (km)	107,829
LT distribution lines (km)	170,600

Service & Efficiency Indicators

Average daily supply hours	19
Average electricity supplied/customer (kWh/year)	2,348
Employees per 1,000 customers	1.30
ACS-ARR gap (INR/unit)	-0.02
AT&C loss	4.87%
Average DT failure rate	6.96%

Customer Services

- Average number of power cuts per customer per month was **31**, percentage of complaints resolved was **100%**
- 46%** of customers reported paying bills at utility office
- Utility has provided **24*7 customer helpline**, well-customized iPGRS application including escalation matrix, technical dashboard and **SMS gateway facility**

Performance Highlights

- Electrification of household customers in rural areas by creating/extending HT lines, erection of distribution transformers and creating/extending LT lines
- Niranthara Jyothi Project enhances reliability and power quality by providing 24*7 three-phase power supply to non-agricultural loads
- System strengthening through new feeders, providing reconductoring, providing underground cable, providing aerial bunched cable, providing new DTC and augmentation of DTC, and providing AMR meter to high-load customers
- Model sub-division scheme and system improvement works in BMAZ area with objectives of providing reliable and quality power supply and reducing distribution system losses

Karnataka Gulbarga

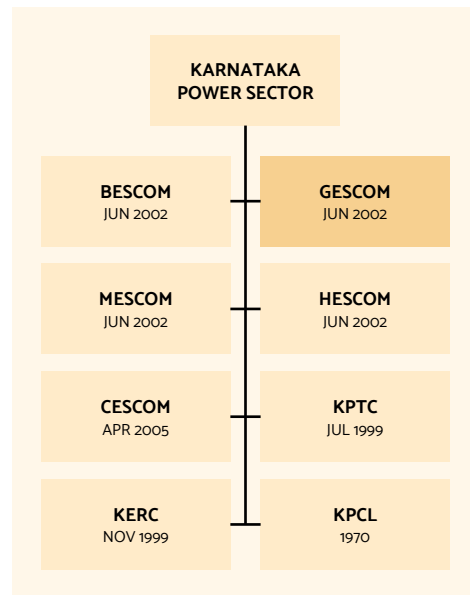
Gulbarga Electricity Supply Company Limited

Gulbarga
Karnataka

GESCOM is one of the five electricity distribution utilities of Karnataka. It is engaged in business in six districts (Bidar, Kalaburagi aka Gulbarga, Yadgiri, Raichur, Koppal, and Ballari), serving a combined population of more than 1.13 crore spread over 43,861 square kilometers. Established in June 2002, the utility's vision is "To ensure reliable quality power to its customers at competitive prices."

GESCOM

State Power Sector Structure

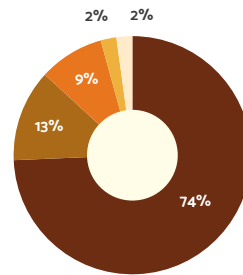


Coverage

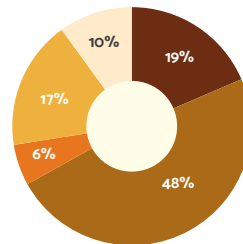
Coverage	GESCOM	Surveyed Utilities Avg
Districts	6	12
Revenue Villages	4,955	15,321
Circles	5	16
Divisions	16	53
Subdivisions	53	156

Customer Profile

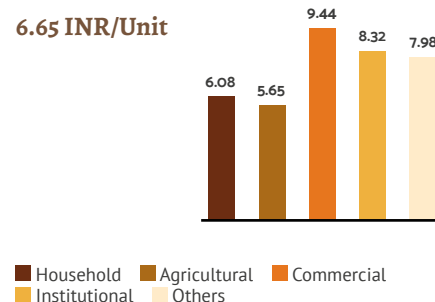
CUSTOMER BASE
30.73 lakhs



ANNUAL ENERGY SALES
7,523 MU



AVERAGE BILLING RATE
6.65 INR/Unit



Business Profile

Annual revenues (INR crore)	5,005
State government subsidy as share of revenue	32.87%
Profit/loss (INR crore)	7.52
Peak demand (MW)	1,800
Number of employees	7,296

Infrastructure Profile

Substation capacity (MVA)	1,285
DT capacity (MVA)	5,301
Number of 11 kV feeders	1,862
HT distribution lines (km)	58,445
LT distribution lines (km)	86,472

Service & Efficiency Indicators

Average daily supply hours	16
Average electricity supplied/customer (kWh/year)	3,016
Employees per 1,000 customers	2.37
ACS-ARR gap (INR/unit)	0.09
AT&C loss	14.71%
Average DT failure rate	13.21%

Customer Services

- Average number of power cuts per customer per month was 53, percentage of complaints resolved was 77%
- 21% of customers reported paying bills at utility office
- Customer care lines increased from 15 to 20 and 24*7 customer care centers increased to 53

Performance Highlights

- All HT and LT connection requests are online now; SAKALA initiative since January 2019 to provide nine services online
- Additional manpower (10 per sub-division in rural and 5 per section in urban) and increased number of vehicles for quick resolution of service requests
- Load shedding through pre-planned time table and through input from SCADA available at district customer care centre
- Power cuts communicated through Urja Mitra Portal (20.5 lakh customers having access) and newspaper notifications
- Utility calculates and monitors reliability index using number of customers and number of supply hours, number of foreseen and unforeseen power cuts
- Feeder loading regularly monitored; bifurcation of feeders and load transfer from high loaded to low loaded feeders

Karnataka Hubli

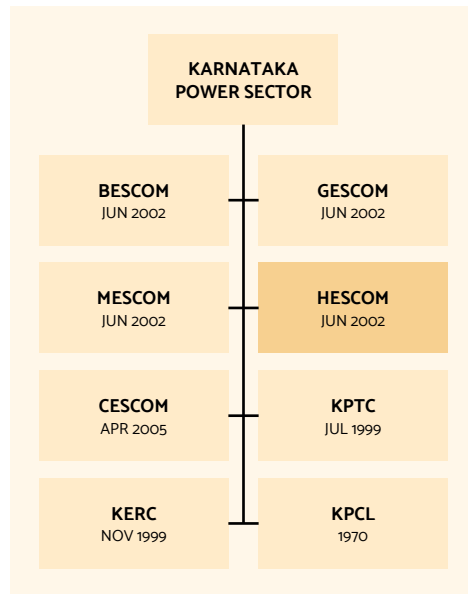
Hubli Electricity Supply Company Limited

HESCOM

Hubli
Karnataka

HESCOM is one of the five electricity distribution utilities of Karnataka. It is engaged in business in seven districts (Dharwad, Belgaum, Gadag, Haveri, Uttarkannada, Bagalkot, and Bijapur), serving a combined population of 1.66 crore spread over 54,513 square kilometers. Established in June 2002, the utility's vision is "To ensure reliable quality power to its customers at competitive prices."

State Power Sector Structure

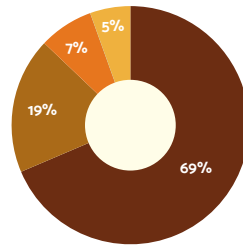


Coverage

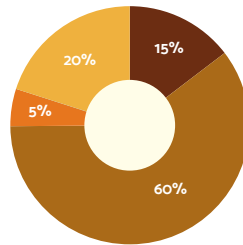
Coverage	HESCOM	Surveyed Utilities Avg
Districts	7	12
Revenue Villages	5,158	15,321
Circles	7	16
Divisions	26	53
Subdivisions	83	156

Customer Profile

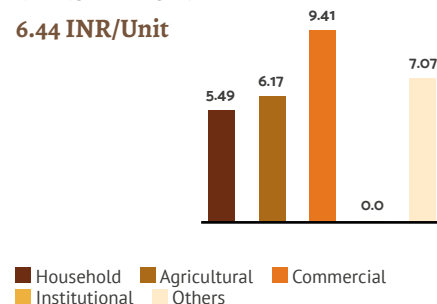
CUSTOMER BASE
50.30 lakhs



ANNUAL ENERGY SALES
11,760 MU



AVERAGE BILLING RATE
6.44 INR/Unit



Business Profile

Annual revenues (INR crore)	7,772
State government subsidy as share of revenue	39.59%
Profit/loss (INR crore)	-101.33
Peak demand (MW)	2,401
Number of employees	9,812

Infrastructure Profile

Substation capacity (MVA)	1,798
DT capacity (MVA)	10,667
Number of 11 kV feeders	3,165
HT distribution lines (km)	85,094
LT distribution lines (km)	135,109

Service & Efficiency Indicators

Average daily supply hours	20
Average electricity supplied/customer (kWh/year)	2,338
Employees per 1,000 customers	1.95
ACS-ARR gap (INR/unit)	-0.03
AT&C loss	11.60%
Average DT failure rate	11.68%

Customer Services

- Average number of power cuts per customer per month was 33, percentage of complaints resolved was 97%
- 87% of customers reported paying bills at utility office
- Daily monitoring of supply-related complaints through call centre (1,912) at all levels and development of customer grievance escalation system
- Encouraging digital payments such as an online portal, payment banks, e-wallets, etc. and bill collection through ATP Machines

Performance Highlights

- Processing new customer connection/load enhancement cases/applications through online system
- Timely guiding to sub-division users for quick release of new connection/load enhancement cases within SERC limit
- To fasten the LT temporary power supply applications for constructing buildings, pre-paid energy meters used in Hubli and Belagavi towns
- Load management through Area Load Dispatch Centre (ALDC) to monitor hours of power supply and power cuts
- Door-to-door spot billing and checking quality of third party/contractual workmen before finalization of contract
- Conducting regular rating of HT and LT installations
- Construction of 11 kV link lines to reduce the load on the existing feeders

Karnataka Mangalore

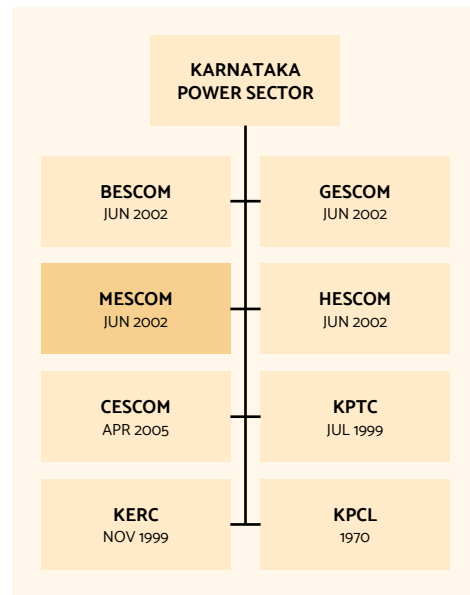
Mangalore Electricity Supply Company Limited

MESCOM

Mangalore
Karnataka

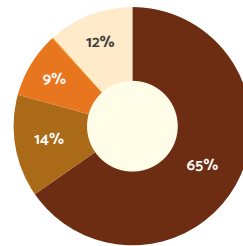
MESCOM is one of the five electricity distribution utilities of Karnataka. It is engaged in business in four districts (Dakshina Kannada, Udupi, Shivamogga, and Chikmagalur), serving a combined population of 61.55 lakhs spread over 25,222 square kilometers. Established in June 2002, the utility's vision is "To not only strengthen economic progress through supply of quality power at competitive prices but also contribute to the overall development of the society."

State Power Sector Structure

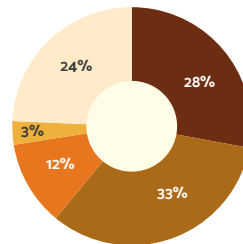


Customer Profile

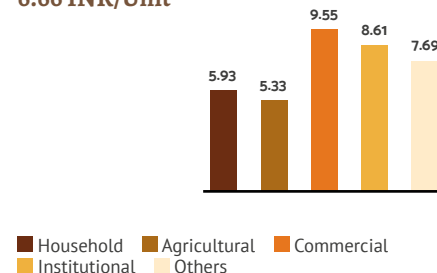
CUSTOMER BASE
23.69 lakhs



ANNUAL ENERGY SALES
4,954 MU



AVERAGE BILLING RATE
6.66 INR/Unit



Coverage

Coverage	MESCOM	Surveyed Utilities Avg
Districts	4	12
Revenue Villages	3,030	15,321
Circles	4	16
Divisions	13	53
Subdivisions	61	156

Business Profile

Annual revenues (INR crore)	3,300
State government subsidy as share of revenue	19.05%
Profit/loss (INR crore)	23.53
Peak demand (MW)	1,281
Number of employees	5,451

Infrastructure Profile

Substation capacity (MVA)	385
DT capacity (MVA)	4,122
Number of 11 kV feeders	979
HT distribution lines (km)	38,772
LT distribution lines (km)	82,959

Service & Efficiency Indicators

Average daily supply hours	17
Average electricity supplied/customer (kWh/year)	2,338
Employees per 1,000 customers	2.18
ACS-ARR gap (INR/unit)	-0.04
AT&C loss	19.00%
Average DT failure rate	11.61%

Customer Services

- Average number of power cuts per customer per month was 56, percentage of complaints resolved was 100%
- 82% of customers reported paying bills at utility office
- Door-to-door spot billing through contract agency, departmental meter readers, and encouraging digital mode of bill payment such as an online portal, payment banks NACH (ECS); customer services through Twitter, WhatsApp, Facebook

Performance Highlights

- Processing new customer connection applications through online system and rigorous tracking at headquarters level
- Procurement of only star-rated energy efficiency distribution transformers
- Installation of capacitor banks in substations for reactive power compensation
- DT metering and micro-level energy audit conducted at a regular basis
- Arranged safety awareness week throughout company jurisdiction, conducted elocution competition/quiz competition in schools related to safety and energy savings issues
- Feeder managers allocated responsibility to achieve 100% billing and collection efficiency

Karnataka Mysore

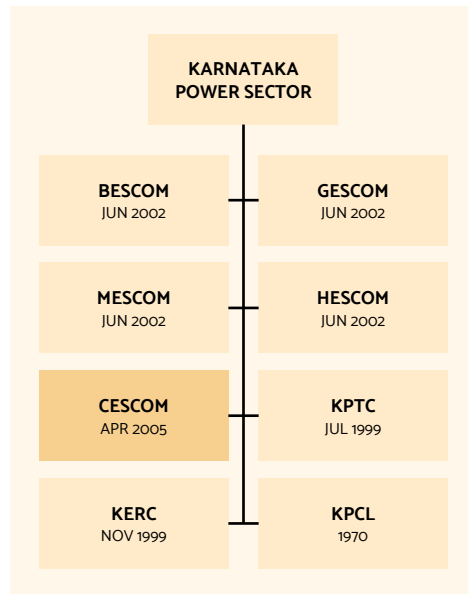
Chamundeshwari Electricity Supply Company Limited

Mysuru
Karnataka

CESCOM is one of the five electricity distribution utilities of Karnataka. It is engaged in business in five districts (Mysore, Chamarajanagar, Mandya, Hassan, and Madakeri), serving a combined population of 82 lakhs spread over 27,773 square kilometers. Established in April 2005, the utility's vision is "To ensure reliable quality power to its customers at competitive prices."

CESCOM

State Power Sector Structure

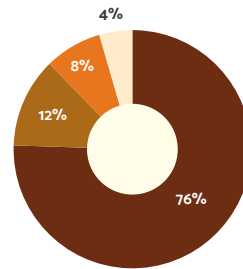


Coverage

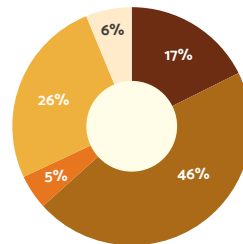
Coverage	CESCOM	Surveyed Utilities Avg
Districts	5	12
Revenue Villages	123	15,321
Circles	4	16
Divisions	18	53
Subdivisions	62	156

Customer Profile

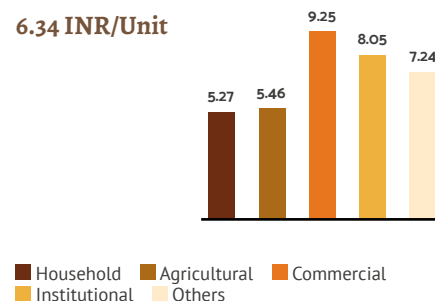
CUSTOMER BASE
31.65 lakhs



ANNUAL ENERGY SALES
6,360 MU



AVERAGE BILLING RATE
6.34 INR/Unit



Business Profile

Annual revenues (INR crore)	4,126
State government subsidy as share of revenue	44%
Profit/loss (INR crore)	1.76
Peak demand (MW)	1,687
Number of employees	6,910

Infrastructure Profile

Substation capacity (MVA)	6,334
DT capacity (MVA)	5,910
Number of 11 kV feeders	1,748
HT distribution lines (km)	175,842
LT distribution lines (km)	343,769

Service & Efficiency Indicators

Average daily supply hours	14
Average electricity supplied/customer (kWh/year)	2,007
Employees per 1,000 customers	2.18
ACS-ARR gap (INR/unit)	-0.02
AT&C loss	15.46%
Average DT failure rate	9.93%

Customer Services

- Average number of power cuts per customer per month was 30, percentage of complaints resolved was 92%
- 54% of customers reported paying bills at utility office
- Establishment of Soujanaya centers and service stations in all sub-divisions for speedy resolution of complaints
- Customers can also register online and apply for LT/HT connection and conduct bill, consumption, payment, etc.

Performance Highlights

- Feeder-wise data analysis and outage management application software is used for generating load shedding protocol in case of loss of generation/emergency and contacting the feeders to be shed by SLDC, to ease off loads
- Customers contacted through SMS for load shedding and use of UrjaMitra app
- Additional substations and transformers at the tail end, and increasing substation/PT capacity from 33kV to 11 kV
- Monthly division and feeder-wise maintenance, cranes acquired for transformer replacement
- Utility calculates and monitors reliability index using number of customers and number of supply hours, number of foreseen and unforeseen power cuts

Meghalaya

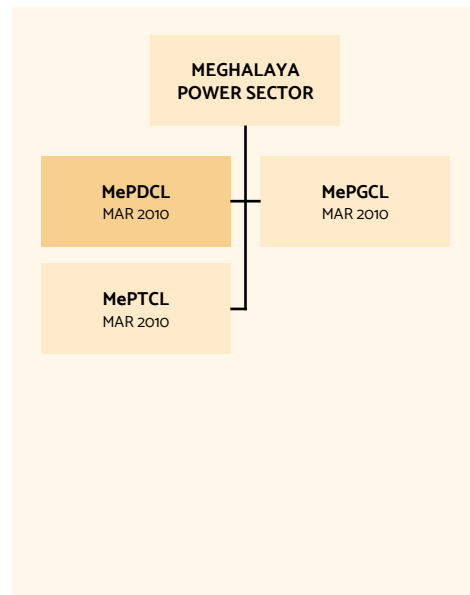
Meghalaya Power Distribution Company Limited

MePDCL

Shillong
Meghalaya

Established in March 2010, MePDCL is the only electricity distribution utility of Meghalaya. It is engaged in business in 11 districts (West Jaintia Hills, East Jaintia Hills, East Khasi Hills, West Khasi Hills, South West Khasi Hills, Ri-Bhoi, North Garo Hills, East Garo Hills, South Garo Hills, West Garo Hills, and South West Garo Hills), serving a combined population of 30 lakhs spread over 22,429 square kilometers.

State Power Sector Structure

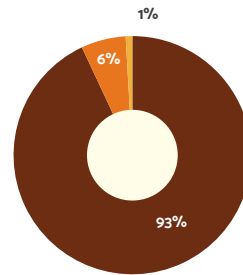


Coverage

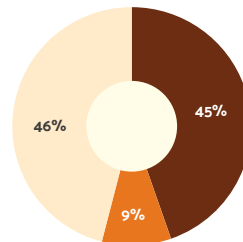
Coverage	MePDCL	Surveyed Utilities Avg
Districts	11	12
Revenue Villages	6,098	15,321
Circles	6	16
Divisions	-	53
Subdivisions	28	156

Customer Profile

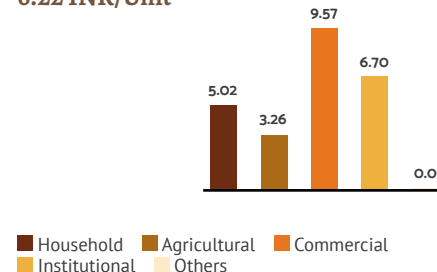
CUSTOMER BASE
4.21 lakhs



ANNUAL ENERGY SALES
1,016 MU



AVERAGE BILLING RATE
6.22 INR/Unit



Business Profile

Annual revenues (INR crore)	566
State government subsidy as share of revenue	3.14%
Profit/loss (INR crore)	-287
Peak demand (MW)	356
Number of employees	5,187

Infrastructure Profile

Substation capacity (MVA)	8
DT capacity (MVA)	97
Number of 11 kV feeders	331
HT distribution lines (km)	5,134
LT distribution lines (km)	10,971

Service & Efficiency Indicators

Average daily supply hours	18
Average electricity supplied/customer (kWh/year)	5,752
Employees per 1,000 customers	7.46
ACS-ARR gap (INR/unit)	1.32
AT&C loss	33.24%
Average DT failure rate	5.00%

Customer Services

- Average number of power cuts per customer per month was 3, percentage of complaints resolved was 94%
- 62% of customers reported paying bills at utility office
- A utility kiosk is being held during the market days (one in eight days) to facilitate customer services (payment, complaint registration, applications)

Performance Highlights

- Division-wise single-window system has been established for customers for all applications: new connection, load enhancement, etc.
- Because of high hydro dependence, power banking is being done to ensure availability during lean season
- Single phase transformers are used in places with dispersed population to avoid load imbalance
- Overhead bare lines are being replaced with insulated conductors in forest areas to prevent frequent power outages
- Mobile vans (MeghaPower Scheme) provided to divisions/circles for attending to supply complaints in remote areas
- Regular R&M is being done for tree cutting, checking DTs and power transformers, proper grounding of poles
- Complaint gangs have been formed at all sub-divisions, and mobile phones are being provided to these gangs

MP Central

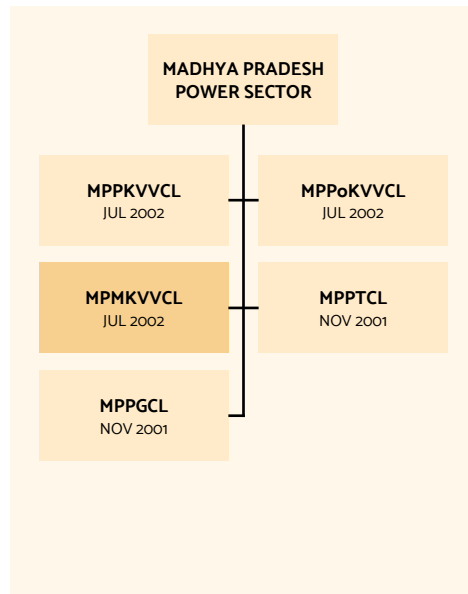
Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited

Bhopal
Madhya Pradesh

MPMKVVCL is one of the three electricity distribution utilities of Madhya Pradesh. It is engaged in business in the central part of the state. Established in July 2002, the utility's vision is "To rank amongst the best ten power distribution companies in India."

MPMKVVCL

State Power Sector Structure

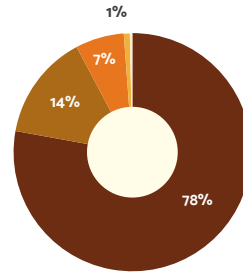


Coverage

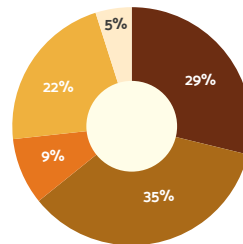
Coverage	MPMKVVCL	Surveyed Utilities Avg
Districts	16	12
Revenue Villages	15,820	15,321
Circles	15	16
Divisions	53	53
Subdivisions	-	156

Customer Profile

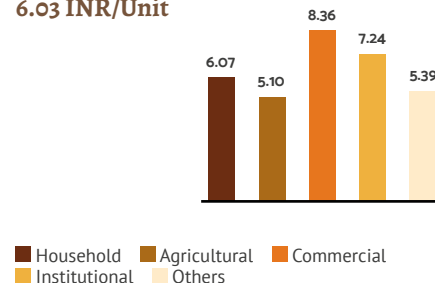
CUSTOMER BASE
43.88 lakhs



ANNUAL ENERGY SALES
15,032 MU



AVERAGE BILLING RATE
6.03 INR/Unit



Business Profile

Annual revenues (INR crore)	9,434
State government subsidy as share of revenue	26.38%
Profit/loss (INR crore)	3,915
Peak demand (MW)	14,089
Number of employees	21,193

Infrastructure Profile

Substation capacity (MVA)	11,268
DT capacity (MVA)	305,900/14,520
Number of 11 kV feeders	5,594
HT distribution lines (km)	169,753
LT distribution lines (km)	125,754

Service & Efficiency Indicators

Average daily supply hours	17
Average electricity supplied/customer (kWh/Year)	4,818
Employees per 1,000 customers	4.83
ACS-ARR gap (INR/unit)	0.99
AT&C loss	36.67%
Average DT failure rate	10.90%

Customer Services

- Average number of power cuts per customer per month was **248**, percentage of complaints resolved was **100%**
- 90%** of customers reported paying bills at utility office
- On the billing front, the utility has enabled multiple options including online and **SMS delivered bills**, combined with flexible payment options such as doorstep collections and online payments

Performance Highlights

- Conducting proper training of linemen and other officers to make them well versed with the SOP of repairs and maintenance
- To manage demand, daily and monthly demand projections are made with feeder-level load data, which then is fed into the centralized demand-forecasting tool
- All of the energy input points (33 kV and 11 kV feeders) are metered, with most of them on AMR for remote data acquisition; network profile parameters including peak loading and voltage profile are continuously monitored
- Any increases in loading patterns, load growth of particular areas, etc. is considered for preparing the sub-transmission and distribution network plan

MP East

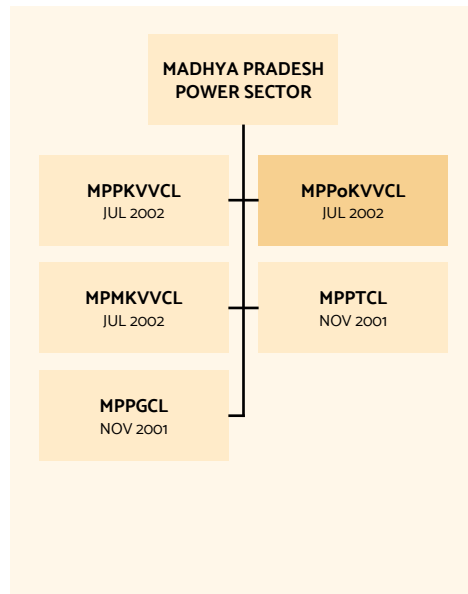
Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited

MPPoKVVCL

Jabalpur
Madhya Pradesh

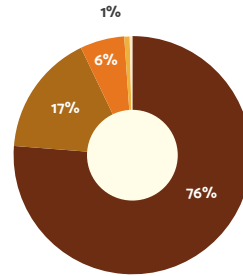
MPPoKVVCL is one of the three electricity distribution utilities of Madhya Pradesh. It is engaged in business in 20 districts: Jabalpur, Chhindwara, Seoni, Balaghat, Mandla, Dindori, Narsinghpur, Katni, Sagar, Damoh, Chhatarpur, Panna New, Tikamgarh, Rewa, Satna, Sidhi, Singrauli, Shahdol, Umariya, and Anuppur. Established in July 2002, the utility's vision is "To be the best electricity supply company in India by continuously enhancing its technological leadership and commercial acumen to satisfy its customers."

State Power Sector Structure

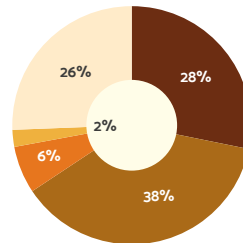


Customer Profile

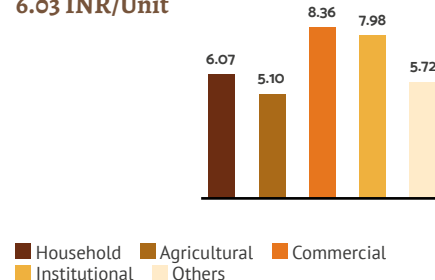
CUSTOMER BASE
58.39 lakhs



ANNUAL ENERGY SALES
14,681 MU



AVERAGE BILLING RATE
6.03 INR/Unit



Business Profile

Annual revenues (INR crore)	9,386
State government subsidy as share of revenue	27.12%
Profit/loss (INR crore)	-2,928
Peak demand (MW)	4,010
Number of employees	10,857

Infrastructure Profile

Substation capacity (MVA)	20,444/9,289
DT capacity (MVA)	11,940
Number of 11 kV feeders	4,622
HT distribution lines (km)	178,630
LT distribution lines (km)	144,231

Service & Efficiency Indicators

Average daily supply hours	18
Average electricity supplied/customer (kWh/year)	2,514
Employees per 1,000 customers	1.86
ACS-ARR gap (INR/unit)	1.09
AT&C loss	31.57%
Average DT failure rate	13.49%

Customer Services

- Average number of power cuts per customer per month was 9, percentage of complaints resolved was 88%
- 66% of customers reported paying bills at utility office
- Organizing camps in villages for customer dispute resolution

Performance Highlights

- Connections having no infrastructure required have been provided on the spot, and connections requiring minimal LT lines are taken first with available resources of the utility without any waiting experienced by customers
- An incentive is provided for early completion of the connection target of circle under the scheme to increase healthy competition and employee motivation
- Development of in-house mobile app (SMART Bijlee app) for ease of new connection process
- Interconnection of 33/11 kV substations for ring main system/network and installation of capacitor banks for reactive power compensation

Coverage

Coverage	MPPoKVVCL	Surveyed Utilities Avg
Districts	20	12
Revenue Villages	24,556	15,321
Circles	21	16
Divisions	53	53
Subdivisions	118	156

MP West

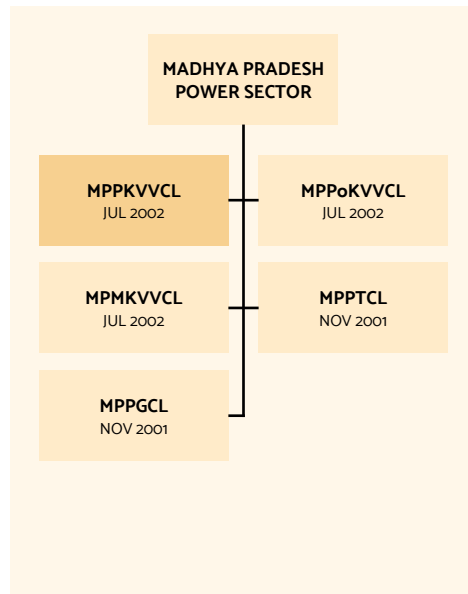
Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited

MPPKVVCL

Indore
Madhya Pradesh

MPPKVVCL is one of the three electricity distribution utilities of Madhya Pradesh. It is engaged in business mainly in the western part of the state. Established in July 2002, the utility's vision is "To rank amongst the best ten power distribution companies in India."

State Power Sector Structure

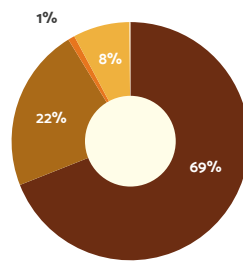


Coverage

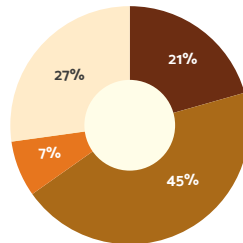
Coverage	MPPKVVCL	Surveyed Utilities Avg
Districts	2	12
Revenue Villages	2,193	15,321
Circles	15	16
Divisions	56	53
Subdivisions	435	156

Customer Profile

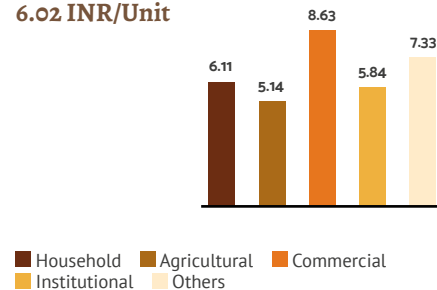
CUSTOMER BASE
53.58 lakhs



ANNUAL ENERGY SALES
20,599 MU



AVERAGE BILLING RATE
6.02 INR/Unit



Business Profile

Annual revenues (INR crore)	13,601
State government subsidy as share of revenue	38.87%
Profit/loss (INR crore)	-1,541
Peak demand (MW)	5,329
Number of employees	20,032

Infrastructure Profile

Substation capacity (MVA)	12,014
DT capacity (MVA)	15,457
Number of 11 kV feeders	6,278
HT distribution lines (km)	148,061
LT distribution lines (km)	170,614

Service & Efficiency Indicators

Average daily supply hours	20
Average electricity supplied/customer (kWh/year)	4,586
Employees per 1,000 customers	3.74
ACS-ARR gap (INR/unit)	0.60
AT&C loss	15.06%
Average DT failure rate	8.17%

Customer Services

- Average number of power cuts per customer per month was **508**, percentage of complaints resolved was **100%**
- **89%** of customers reported paying bills at utility office
- On the billing front, the utility has enabled multiple options including online and SMS delivered bills, combined with flexible payment options such as doorstep collections and online payments

Performance Highlights

- 100% rural feeder metering, however only 23% of rural DT metering is implemented
- Enterprise resource planning is not implemented in the utility
- Utility has controlled AT&C losses, however it is substantially dependent on the state government subsidy (39% of total revenue)

Punjab

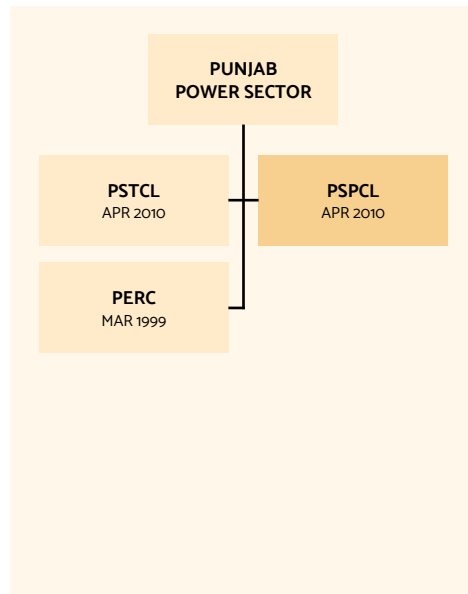
Punjab State Power Corporation Limited

PSPCL

Patiala
Punjab

PSPCL is the only electricity distribution utility in the state of Punjab. It is engaged in business in 23 districts (Amritsar, Barnala, Bathinda, Faridkot, Fatehgarh Sahib, Fazilka, Ferozepur, Gurdaspur, Hoshiarpur, Jalandhar, Kapurthala, Ludhiana, Mansa, Moga, Muktsar, Nawanshahr, Pathankot, Patiala, Rupnagar, Sahibzada Ajit Singh Nagar, Sangrur, and Tarn Taran), serving a combined state population of 2.77 crore spread over 55,319 square kilometers. It also owns power generating plants. Established in April 2010, the utility's vision is "To be a vibrant, responsive, and self-reliant institution."

State Power Sector Structure

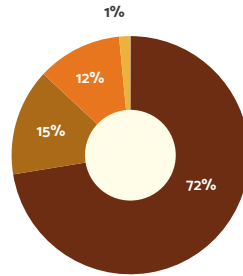


Coverage

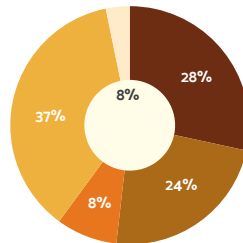
Coverage	PSPCL	Surveyed Utilities Avg
Districts	23	12
Revenue Villages	12,729	15,321
Circles	12	16
Divisions	100	53
Subdivisions	600	156

Customer Profile

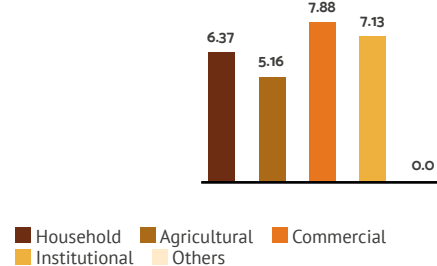
CUSTOMER BASE
94.78 lakhs



ANNUAL ENERGY SALES
47,971 MU



AVERAGE BILLING RATE
6.28 INR/Unit



Business Profile

Annual revenues (INR crore)	21,496
State government subsidy as share of revenue	42.04%
Profit/loss (INR crore)	-288
Peak demand (MW)	12,638
Number of employees	35,446

Infrastructure Profile

Substation capacity (MVA)	59,207
DT capacity (MVA)	0
Number of 11 kV feeders	11,935
HT distribution lines (km)	242,012
LT distribution lines (km)	147,083

Service & Efficiency Indicators

Average daily supply hours	14
Average electricity supplied/customer (kWh/year)	5,829
Employees per 1,000 customers	3.74
ACS-ARR gap (INR/unit)	-0.05
AT&C loss	12.04%
Average DT failure rate	4.00%

Customer Services

- Average number of power cuts per customer per month was 24, percentage of complaints resolved was 47%
- 32% of customers reported paying bills at utility office
- Extension of 1912 helpline number for new customer applications (currently a pilot project in five sub-divisions)

Performance Highlights

- First utility to implement digital bill collection
- First utility to implement 1912 helpline number and implementation of 100% complaint feedback system
- Online application and easy documentation for new connections
- Feeder segregation based on customer category, such as agricultural, commercial, domestic, industrial, urban, rural, etc.
- Additional initiatives include power banking, long-term PPA, infrastructure strengthening for increasing power supply availability
- Availability of secondary source of supply for important feeders and implementation of smart grid on a pilot basis
- 100% spot billing for household, commercial, and small industrial customers, and AMR billing for high-load customers

UP Central

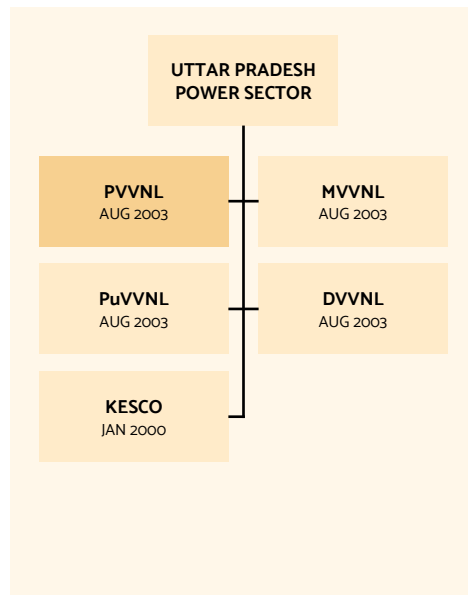
Madhyanchal Vidyut Vitran Nigam Limited

MVVNL

Lucknow
Uttar Pradesh

MVVNL is one of the five electricity distribution utilities of Uttar Pradesh. It is engaged in business in 19 districts: Budaun, Bareilly, Pilibhit, Shahjahanpur, Lakhimpur, Hardoi, Sitapur, Unnao, Bahraich, Shrawasti, Balrampur, Gonda, Barabanki, Rae Bareli, Faizabad, Sultanpur, Ambedkarnagar, Lucknow, and Chhatrapati Sahuji Maharaj Nagar. Established in August 2003, the utility's vision is "To be one of the best managed utilities in power sector and to provide access to electricity to everyone in the DISCOM."

State Power Sector Structure

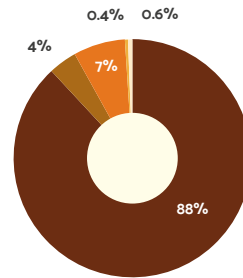


Coverage

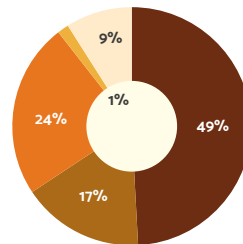
Coverage	MVVNL	Surveyed Utilities Avg
Districts	19	12
Revenue Villages	30,628	15,321
Circles	33	16
Divisions	105	53
Subdivisions	400	156

Customer Profile

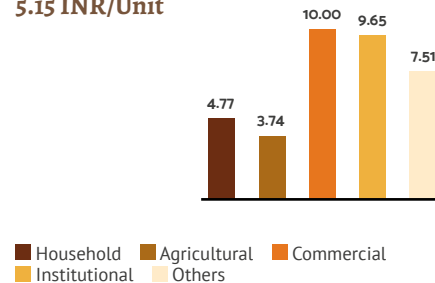
CUSTOMER BASE
51.77 lakhs



ANNUAL ENERGY SALES
17,007 MU



AVERAGE BILLING RATE
5.15 INR/Unit



Business Profile

Annual revenues (INR crore)	11,165
State government subsidy as share of revenue	12%
Profit/loss (INR crore)	-431.00
Peak demand (MW)	2,495
Number of employees	10,474

Infrastructure Profile

Substation capacity (MVA)	9,291
DT capacity (MVA)	11,282
Number of 11 kV feeders	4,254
HT distribution lines (km)	138,340
LT distribution lines (km)	433,616

Service & Efficiency Indicators

Average daily supply hours	14
Average electricity supplied/customer (kWh/year)	3,803
Employees per 1,000 customers	2.02
ACS-ARR gap (INR/unit)	0.13
AT&C loss	6.90%
Average DT failure rate	21.60%

Customer Services

- Average number of power cuts per customer per month was 7, percentage of complaints resolved was **90%**
- 71%** of customers reported paying bills at utility office
- E-Nivaran mobile app enabled customers to avail UPPCL and the utility's bill-related services and queries at their fingertips

Performance Highlights

- Launch of Jhatpat connection scheme for fast release of new connections
- More than 17,000 DTs, 8400 km length of 11kV lines and around 12000 km of LT lines installed recently
- Camps in villages for customer applications and rigorous monitoring at headquarters level for new connection application
- Shifting of peak demand from day to night by providing cheaper electricity to industrial customers during off-peak hours
- Availability of secondary source of supply and installation of capacitor bank in substations
- Inspection checklist for monitoring of network asset conditions, scheduled asset testing and tracking at substation level
- E-Sanyojan mobile app introduced by UPPCL for its customers

UP East

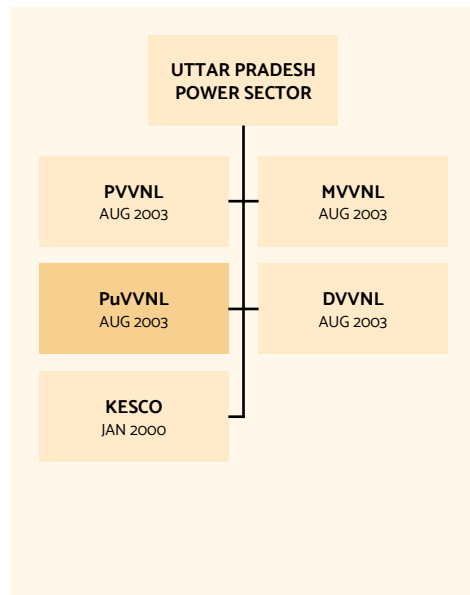
Purvanchal Vidyut Vitran Nigam Limited

PuVVNL

Varanasi
Uttar Pradesh

PuVVNL is one of the five electricity distribution utilities of Uttar Pradesh. It is engaged in business in 21 districts: Varanasi, Ghazipur, Chandauli, Jaunpur, Sant Ravidas Nagar (Bhadohi), Mirzapur, Sonbhadra, Mau, Azamgarh, Ballia, Deoria, Kushi Nagar, Gorakhpur, Maharajganj, SantKabir Nagar, Basti, Sidharth Nagar, Allahabad, Pratapgarh, Fatehpur, and Kaushambi. Established in August 2003, the utility's vision is "To be a professionally managed utility supplying reliable and cost-efficient electricity to every customer of discom."

State Power Sector Structure

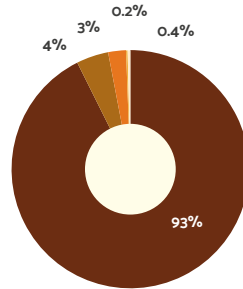


Coverage

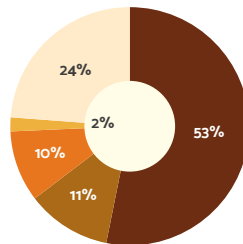
Coverage	PuVVNL	Surveyed Utilities Avg
Districts	21	12
Revenue Villages	-	15,321
Circles	14	16
Divisions	47	53
Subdivisions	-	156

Customer Profile

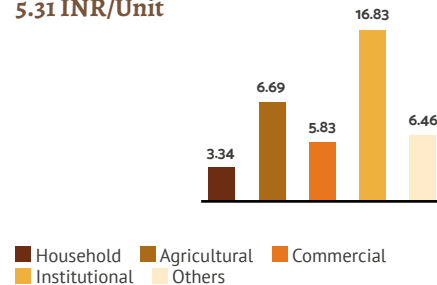
CUSTOMER BASE
68.58 lakhs



ANNUAL ENERGY SALES
20,795 MU



AVERAGE BILLING RATE
5.31 INR/Unit



Business Profile

Annual revenues (INR crore)	6,321
State government subsidy as share of revenue	33.1%
Profit/loss (INR crore)	840
Peak demand (MW)	-
Number of employees	7,374

Infrastructure Profile

Substation capacity (MVA)	11,819
DT capacity (MVA)	9,516
Number of 11 kV feeders	3,572
HT distribution lines (km)	16,832
LT distribution lines (km)	125,208

Service & Efficiency Indicators

Average daily supply hours	15
Average electricity supplied/customer (kWh/year)	3,055
Employees per 1,000 customers	1.08
ACS-ARR gap (INR/unit)	2.26
AT&C loss	47.47%
Average DT failure rate	18.15%

Customer Services

- Average number of power cuts per customer per month was **76**, percentage of complaints resolved was **92%**
- 68%** of customers reported paying bills at utility office
- Encouraging digital modes of bill payment, such as an online portal, payment banks, e-wallets, mobile apps and bill collection through village CSCs (Common Service Centers) and VLEs (Village Level Entrepreneurs)

Performance Highlights

- Launch of Jhatpat connection scheme and mobile application for new electricity connection
- Approximately 11,000 new connections released for household customers located in far flung areas where it is difficult to build conventional infrastructure
- Nivesh-Mitra online portal for industrial customers has been formed to address issues related to ease of doing business
- Transformer load balancing, feeder segregation, installation of new DTs and substation augmentation
- Use of inspection checklist for regular monitoring of network asset conditions, scheduled asset testing and tracking the progress at substation level

UP Kanpur

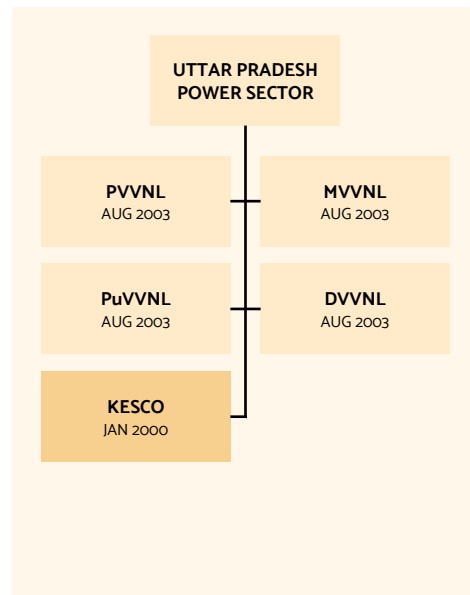
Kanpur Electricity Supply Company

KESCO

Kanpur
Uttar Pradesh

KESCO is one of the five electricity distribution utilities of Uttar Pradesh. It is engaged in business in Kanpur and the neighboring area, serving a combined population of 27.65 lakhs spread over 3,155 square kilometers. Established in January 2000, the utility's vision is "To provide cost effective, good quality, uninterrupted power at competitive rates to all the customers in operating area."

State Power Sector Structure

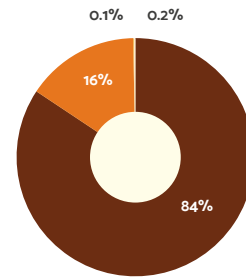


Coverage

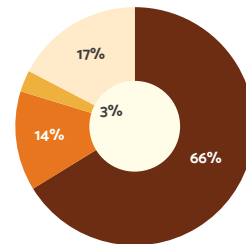
Coverage	KESCO	Surveyed Utilities Avg
Districts	1	12
Revenue Villages	-	15,321
Circles	4	16
Divisions	20	53
Subdivisions	43	156

Customer Profile

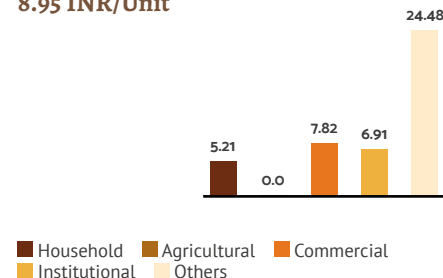
CUSTOMER BASE
6.13 lakhs



ANNUAL ENERGY SALES
3,023 MU



AVERAGE BILLING RATE
8.95 INR/Unit



Business Profile

Annual revenues (INR crore)	2,594
State government subsidy as share of revenue	0%
Profit/loss (INR crore)	0.00
Peak demand (MW)	719
Number of employees	1,718

Infrastructure Profile

Substation capacity (MVA)	1,567
DT capacity (MVA)	1,467
Number of 11 kV feeders	497
HT distribution lines (km)	504
LT distribution lines (km)	2,556

Service & Efficiency Indicators

Average daily supply hours	13
Average electricity supplied/customer (kWh/year)	4,931
Employees per 1,000 customers	2.80
ACS-ARR gap (INR/unit)	-1.12
AT&C loss	13.84%
Average DT failure rate	12.13%

Customer Services

- Average number of power cuts per customer per month was **143**, percentage of complaints resolved was **44%**
- 61%** of customers reported paying bills at utility office
- For all breakdowns, IT system sends SMS immediately to customer if any feeder is tripped

Performance Highlights

- Online portal Jhatpat for new connections and load enhancement; monitoring at central parent organisational level
- E-nivesh portal for industrial connections
- Re-conductoring of old wires, erection of stable poles, aerial bunched cabling and concrete poles undertaken at distribution level
- 24*7 WhatsApp group for operation executives; resolution time is calculated and communicated; the call center updates these details on Twitter as well
- High current information is checked every 2-3 days for DTs and replaced if defective
- Tripping free projects for four divisions, DTs to be installed with TPMOS (3 pole manual operated switch) to avoid switching off of a particular feeder to isolate the defective one

UP South

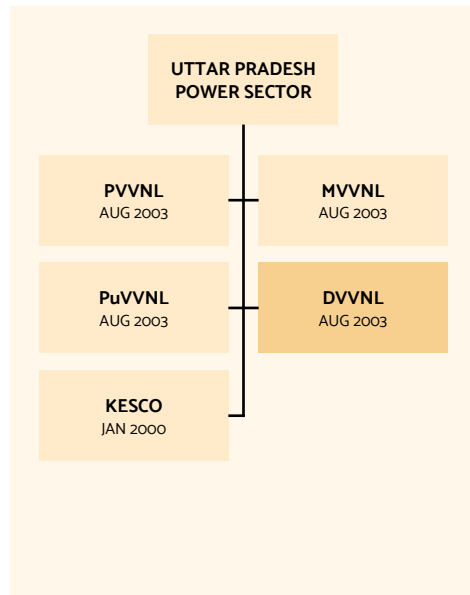
Dakshinanchal Vidyut Vitran Nigam Limied

DVVNL

Agra
Uttar Pradesh

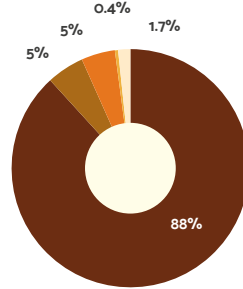
DVVNL is one of the five electricity distribution utilities of Uttar Pradesh. It is engaged in business in 21 districts (Agra, Mathura, Mainpuri, Aligarh, Hathras, Etawah, Etah, Farrukhabad, Firozabad, Kanpur City, Kanpur rural, Banda, Jhansi, Kannauj, Auraiya, Jalaun Urai, Hamirpur, Mahoba, Lalitpur, Chitrakoot, and Kanshiram Nagar), serving a combined population of 4.38 crore spread over 31,350 square kilometers. Established in August 2003, the utility's vision is "To be one of the best managed utility corporation in Uttar Pradesh Power Corporation Ltd. and to provide access electricity to everyone in the zones."

State Power Sector Structure

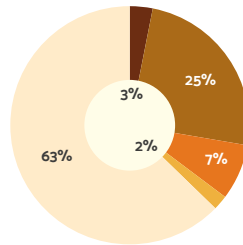


Customer Profile

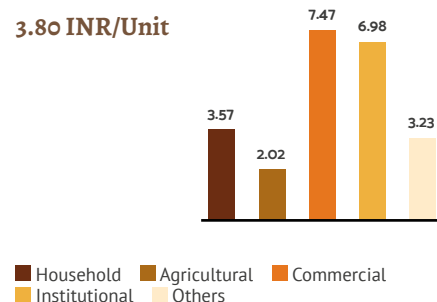
CUSTOMER BASE
50.24 lakhs



ANNUAL ENERGY SALES
19,035 MU



AVERAGE BILLING RATE
3.80 INR/Unit



Business Profile

Annual revenues (INR crore)	7,241
State government subsidy as share of revenue	36.71%
Profit/loss (INR crore)	398
Peak demand (MW)	0
Number of employees	6,630

Infrastructure Profile

Substation capacity (MVA)	10,049
DT capacity (MVA)	16,052
Number of 11 kV feeders	3,875
HT distribution lines (km)	81,558
LT distribution lines (km)	140,617

Service & Efficiency Indicators

Average daily supply hours	13
Average electricity supplied/customer (kWh/year)	3,789
Employees per 1,000 customers	1.32
ACS-ARR gap (INR/unit)	1.67
AT&C loss	29.25%
Average DT failure rate	18.38%

Customer Services

- Average number of power cuts per customer per month was **24**, percentage of complaints resolved was **99%**
- **76%** of customers reported paying bills at utility office
- On the billing front, the utility has enabled multiple options including online bills, combined with flexible payment options such as online payments and mobile app

Performance Highlights

- Launch of Jhatpat connection scheme for quick release of new connections
- Nivesh-Mitra online portal for industrial customers to address issues related to ease of doing business and assistance related to electricity
- Shifting of peak demand from day to night by providing cheaper electricity to industrial customers during off-peak hours
- Use of preventive maintenance checklist for regular monitoring of network asset conditions
- Metering – smart metering, IT capability building of utility staff, daily meter installation tracking and attendance of meter installation team at division level
- E-Suvidha portal to increase collection efficiency

Coverage

Coverage	DVVNL	Surveyed Utilities Avg
Districts	21	12
Revenue Villages	16,038	15,321
Circles	29	16
Divisions	77	53
Subdivisions	175	156

UP West

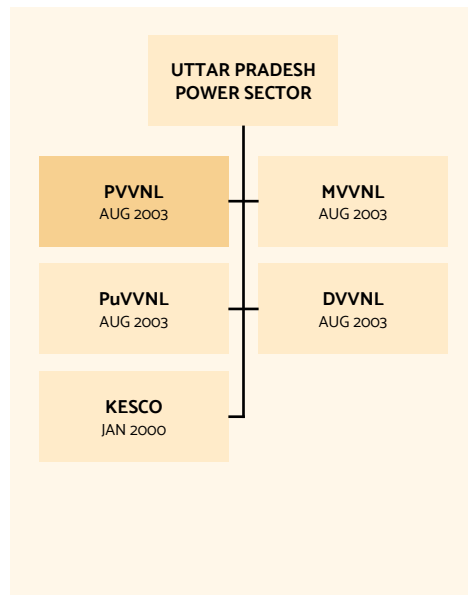
Paschimanchal Vidyut Vitran Nigam Limited

PVVNL

Agra
Uttar Pradesh

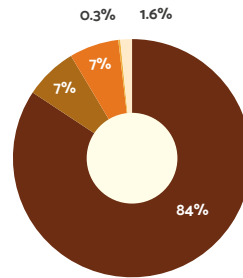
PVVNL is one of the five electricity distribution utilities of Uttar Pradesh. It is engaged in business in 11 districts: Meerut, Baghpat, Ghaziabad, Gutambudh Nagar, Bulandshahar, Muzaffarnagar, Saharanpur, Bijnor, Moradabad, J.P. Nagar, and Rampur. Established in August 2003, the utility's vision is "To be a professionally managed utility supplying reliable and cost-efficient electricity to every customer of discom."

State Power Sector Structure

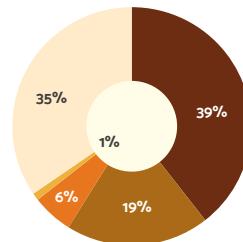


Customer Profile

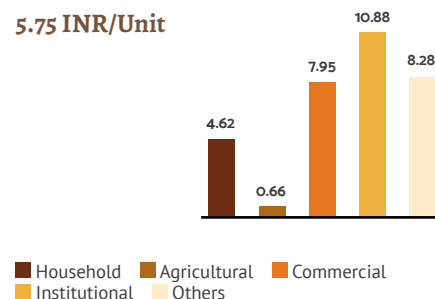
CUSTOMER BASE
60.81 lakhs



ANNUAL ENERGY SALES
28,393 MU



AVERAGE BILLING RATE
5.75 INR/Unit



Business Profile

Annual revenues (INR crore)	15,226
State government subsidy as share of revenue	13.17%
Profit/loss (INR crore)	-
Peak demand (MW)	6,760
Number of employees	5,811

Infrastructure Profile

Substation capacity (MVA)	18,629
DT capacity (MVA)	23,129
Number of 11 kV feeders	5,030
HT distribution lines (km)	115,000
LT distribution lines (km)	268,000

Service & Efficiency Indicators

Average daily supply hours	14
Average electricity supplied/customer (kWh/year)	5,448
Employees per 1,000 customers	0.96
ACS-ARR gap (INR/unit)	-0.42
AT&C loss	15.31%
Average DT failure rate	10.00%

Customer Services

- Average number of power cuts per customer per month was 52, percentage of complaints resolved was 100%
- 70% of customers reported paying bills at utility office
- Development of customer grievance escalation system, daily monitoring of supply-related complaints
- Bill collection through village CSCs (Common Service Centers) and VLEs (Village Level Entrepreneurs)

Performance Highlights

- Agricultural and rural feeder segregation with supply to agricultural feeder only during daytime
- Shifting of peak demand from day to night by providing cheaper electricity to industrial customers during off-peak hours
- Balancing transformer and feeder loading
- Availability of secondary source of supply with installation of RMU and installation of capacitor bank in substations
- Use of inspection checklist for regular monitoring of network asset conditions, and scheduled asset testing and tracking the progress at substation level
- Utility checks the quality of third party/contractual workmen responsible for billing before finalization of contract
- Monthly meeting to monitor billing and collection efficiency at zonal and headquarters level

Coverage

Coverage	PVVNL	Surveyed Utilities Avg
Districts	11	12
Revenue Villages	13,137	15,321
Circles	21	16
Divisions	95	53
Subdivisions	212	156

West Bengal

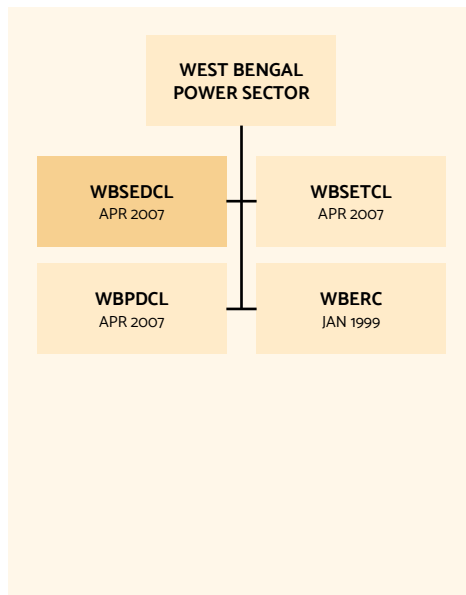
West Bengal State Electricity Distribution Company Limited

WBSSEDCL

Kolkata
West Bengal

WBSSEDCL is the only state electricity distribution utility in West Bengal. It is engaged in business in 18 districts (North 24 Parganas, South 24 Parganas & Bidhannagar, Howrah, Hooghly, Burdwan, Birbhum, Paschim Midnapore, Purba Midnapore, Bankura, Purulia, Nadia, Murshidabad, Malda, Uttar Dinajpur, Dakshin Dinajpur, Coochbehar, Jalpaiguri, and Darjeeling), serving a combined population of 9 crore spread over 86,090 square kilometers. Established in April 2007, the utility's vision is "To be the best power utility in India in terms of customer service, efficiency, and financial viability."

State Power Sector Structure

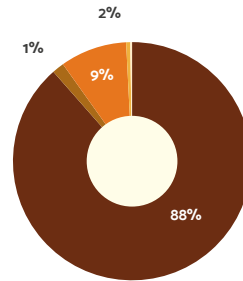


Coverage

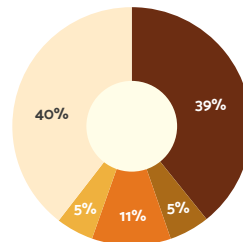
Coverage	WBSSEDCL	Surveyed Utilities Avg
Districts	22	12
Revenue Villages	37,960	15,321
Circles	20	16
Divisions	76	53
Subdivisions	530	156

Customer Profile

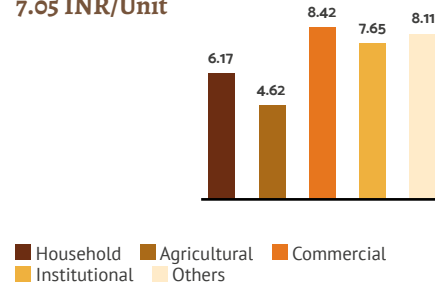
CUSTOMER BASE
1.91 crore



ANNUAL ENERGY SALES
27,678 MU



AVERAGE BILLING RATE
7.05 INR/Unit



Business Profile

Annual revenues (INR crore)	21,653
State government subsidy as share of revenue	5.02%
Profit/loss (INR crore)	51
Peak demand (MW)	6,125
Number of employees	13,318

Infrastructure Profile

Substation capacity (MVA)	11,271
DT capacity (MVA)	12,855
Number of 11 kV feeders	3,948
HT distribution lines (km)	183,247
LT distribution lines (km)	336,596

Service & Efficiency Indicators

Average daily supply hours	20
Average electricity supplied/customer (kWh/year)	2,173
Employees per 1,000 customers	1.95
ACS-ARR gap (INR/unit)	0.03
AT&C loss	10.03%
Average DT failure rate	7.04%

Customer Services

- Average number of power cuts per customer per month was 22, percentage of complaints resolved was 26%
- 67% of customers reported paying bills at utility office
- Spot billing system to majority of light and medium voltage customers and for all bulk customers, M-DAS billing introduced

Performance Highlights

- New connection process was reformed and made available online
- System upgrade and strengthening work being carried out where new substation is being constructed, bifurcation of HT line, augmentation of substation with line conductor capacity, high-voltage distribution system, underground cabling, LT aerial bunched cabling, DT quantity and capacity augmentation, LT lines conductor and phase augmentation
- Condition-based monitoring system is being followed by using condition monitoring equipment, provided at five zonal testing units and one central testing unit; periodic line patrolling and associated maintenance program as well
- Upgrade of sub-transmission infrastructure, construction of new 33/11 kV substations to improve power quality with reduction of technical loss