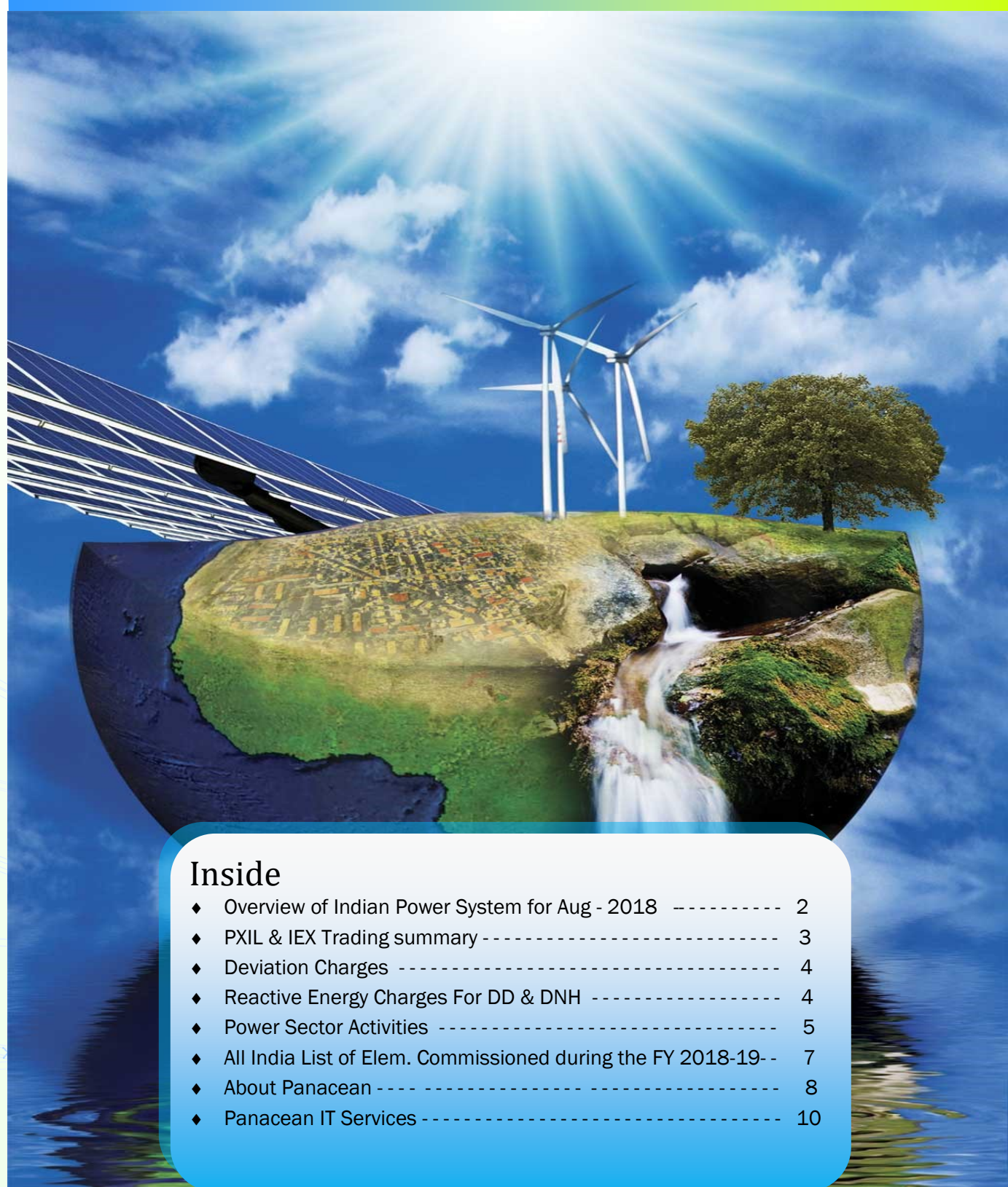




POWER BULLETIN

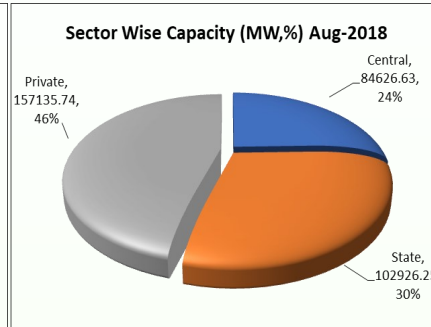
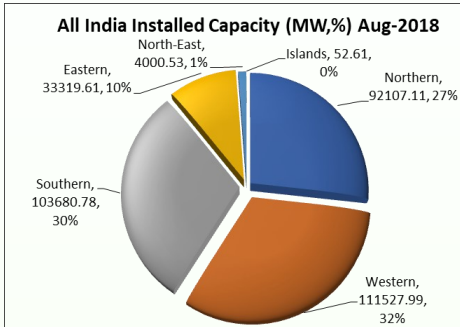


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OVERVIEW OF INDIAN POWER SYSTEM FOR AUG-2018

All India Installed Capacity (MW) as on 31-08-2018						All India Installed Capacity (MW) as on 31-08-2018		Peak Demand of DD & DNH				
Region	Thermal	Nuclear	Hydro	RES	Total	Sector	Generation (MW)	Aug-18				
Northern	57766.46	1620.00	19707.77	13012.88	92107.11			Utility	Peak Demand (MW)	Peak Met (MW)	Surplus/Deficit (-)	
Western	81415.11	1840.00	7547.50	20725.38	111527.99	Central	84626.63				DD	347
Southern	53017.26	3320.00	11808.03	35535.49	103680.78		State	102926.25	DNH	804		804
Eastern	27301.64	0.00	4942.12	1075.85	33319.61	Private		157135.74				
North-Eastern	2262.07	0.00	1452.00	286.46	4000.53		Total	344688.62				
Islands	40.05	0.00	0.00	12.56	52.61							
ALL	221802.59	6780.00	45457.42	70648.62	344688.63							



All India Plant Load Factor (PLF) in (%)

Sector	Aug-17	Aug-18
Central	69.20	66.64
State	50.20	49.64
Private	64.25	63.22
ALL India	57.33	56.39

Highlights of WR Grid for Aug-2018

- Maximum Peak Demand Met:** 49629 MW
- Energy Consumption:** Total Energy Consumption in the month of Aug-2018 was 32165 MUs at an average of 1038 MUs/day & Maxi-mum was 1131 MUs on 14.08.2018.
- Unrestricted Demand:** Maximum Unrestricted demand was 49629 MW and Average Peak Unrestricted demand was 43240 MW.
- Frequency Profile:** System frequency as per IEGC band is 49.90 Hz to 50.05 Hz. Maxi-mum, Minimum & Average Frequencies 50.22 Hz, 49.62 Hz & 49.98 Hz were respectively observed in the month of Aug-2018.
- Voltage Profile:** All 765KV nodes except Tamnar, Durg, Kotra and Vadodara (high voltage node) of WR were within the IEGC limit. High Voltage (greater than 420 KV) at 400KV substations were observed at Khandwa, Damoh, Nagda, Indore, Raipur, Raigarh, Wardha, Dhule, Boisar, Amreli, Karad, Kalwa, Dehgaon, Kasor, Jetpur, Kala Vapi, Mapusa and Magarwada. Highest of 91.53% of time above 420KV observed at Dhule.
- Hydro Generation:** Total hydro generation of Western Region was 774 MUs at an average of 24.98 MUs/day in the month of Aug-2018.
- Wind Generation:** Total wind generation was 3521 MUs at an average of 113.6 MUs/day in the month of Aug-2018.
- Solar Generation:** Total Solar generation was 367 MUs at an average of 12 MUs/day in the month of Aug-2018.
- Open Access Transaction Details for Aug-2018:**
 - ⇒ No. of approvals & Energy Approved in Intra-regional: 220 & 691.96 MUs.
 - ⇒ No. of approvals & Energy Approved in Inter-regional: 56 & 205.59 MUs.

[Read More...](#)

List of Transmission Lines Commissioned/Ready for Commissioning During Aug-2018

Sector	Central				Pvt.			State				Total
	800	765	400	220	765	400	220	765	400	230	220	
Voltage Level (KV)												
No. of Lines	0	0	3	0	2	1	0	0	4	0	15	25

List of Substations Commissioned/Ready for Commissioning During Aug-2018

Sector	Central				Pvt.			State				Total
	765	400	230	220	765	400	220	765	400	230	220	
Voltage Level (KV)												
No. of Substations	1	0	0	0	0	1	0	0	3	0	16	21

Region-wise Power Supply Position (Demand & Availability) in Aug-2017 & Aug-2018

Region	Energy (MUs)				Deficit / Surplus (%)	
	Demand		Energy Met		Aug-17	Aug-18
	Aug-17	Aug-18	Aug-17	Aug-18		
Northern	36792	38529	36236	38128	(1.5)	(1.0)
Western	29127	29828	29112	29820	(0.1)	(0.0)
Southern	26100	27901	26077	27867	(0.1)	(0.1)
Eastern	12063	14065	11954	14029	(0.9)	(0.3)
North Eastern	1574	1648	1526	1599	(3.0)	(3.0)
All India	105656	111971	104905	111443	(0.7)	(0.5)

Region-wise Peak Demand / Peak Met in Aug-2017 & Aug-2018

Region	Power (MW)				Deficit / Surplus (%)	
	Peak Demand		Peak Met		Aug-17	Aug-18
	Aug-17	Aug-18	Aug-17	Aug-18		
Northern	60749	57956	58448	57304	(3.8)	(1.1)
Western	45228	49629	45174	49629	(0.1)	0.0
Southern	40505	44582	40089	44582	(1.0)	0.0
Eastern	19370	22313	19220	22313	(0.8)	0.0
North Eastern	2529	2967	2441	2795	(3.5)	(5.8)
All India	164066	170976	160752	170182	(2.0)	(0.5)

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POWER TRADING

⇒ Emergence of IT has helped to create massive E-Commerce platforms in every walk of life. One such E-Commerce platform for transiting electricity for physical delivery, fine tuning daily requirements, sale of residual generation, optimal utilization of generating resources at marginal cost of production etc. has been made possible through the commencement of Power Exchanges.

⇒ For more information about IEX visit (www.iexindia.com); For more information about PXIL visit (www.powerexindia.com)

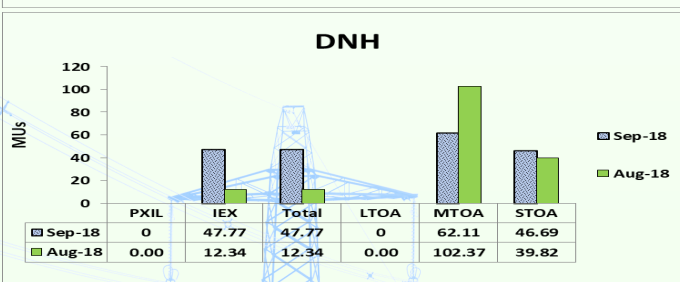
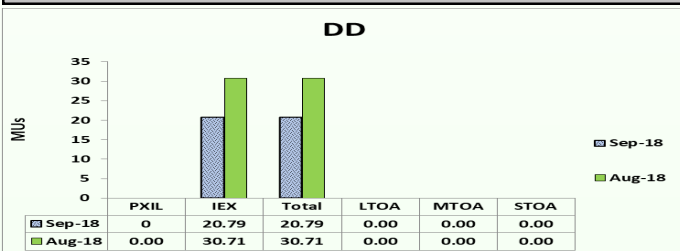


⇒ PXIL & IEX Trading summary

SEP-2018	PXIL					IEX				
	Buy Bid (MWh)	Sell Bid (MWh)	MCP (₹/MWh)	Cleared Volume (MWh)	Marginal Clear Volume (MWh)	Buy Bid (MWh)	Sell Bid (MWh)	MCP (₹/MWh)	Cleared Volume (MWh)	Marginal Clear Volume (MWh)
Total	163963.0	190790.0	-	63020.0	63020.0	7408027.5	7688270.3	-	5725489.3	5730225.6
Min	1.5	0.0	0.0	0.0	0.0	3873.6	5808.7	1749.8	3726.6	3726.6
Max	226.5	325.0	6210.0	200.0	200.0	17807.3	17500.1	15764.8	13905.0	13905.0
Avg	56.9	66.2	2753.9	21.9	21.9	10288.9	10678.2	4694.1	7952.1	7958.7

AUG-2018	PXIL					IEX				
	Buy Bid (MWh)	Sell Bid (MWh)	MCP (₹/MWh)	Cleared Volume (MWh)	Marginal Clear Volume (MWh)	Buy Bid (MWh)	Sell Bid (MWh)	MCP (₹/MWh)	Cleared Volume (MWh)	Marginal Clear Volume (MWh)
Total	50872.0	204680.0	-	19779.5	19779.5	4899160.3	7336797.3	-	4019357.8	4026235.8
Min	1.5	0.0	2650.0	0.0	0.0	3825.3	5718.9	1749.2	3575.1	3575.1
Max	165.0	170.0	3870.0	14.0	14.0	10536.3	15479.2	8750.4	7544.6	7544.6
Avg	17.1	68.8	3183.4	6.6	6.6	6584.9	9861.3	3340.2	5402.4	5411.6

DD & DNH: OPEN ACCESS DETAILS



REC Trading Session Sep-2018

Trader Company	PXIL		IEX		
	Particular	Non-Solar	Solar	Non-Solar	Solar
Total Sell Bid (REC's)	106,833	538,079	486,175	1,461,202	
Total Buy Bid (REC's)	286,601	199,017	501,255	2,156,459	
Clearing Price (₹/Certificate)	1,300	1,000	1,100	1,000	
Cleared Volume (REC's)	101,175	199,017	244,401	1,359,045	

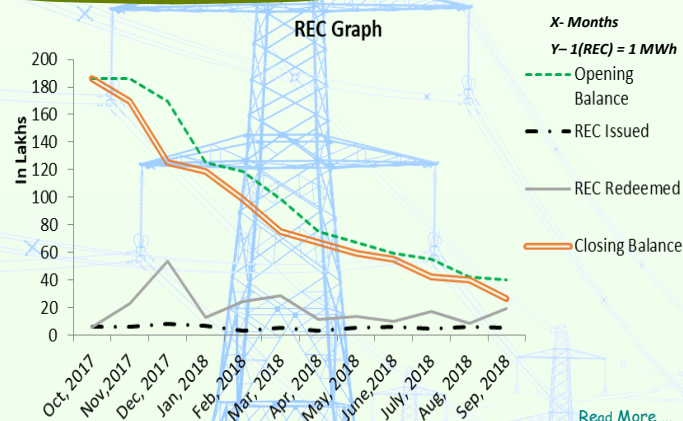
POWER MARKET UPDATE: September 2018 Spot Power Market Trades 5,725 MU at Rs. 4.69 per unit

- The average Market Clearing Price (MCP) discovered in the day-ahead market was at Rs. 4.69 per unit, was increase with the price of August-18 which was Rs. 3.34 per unit and 15% above with the price of Sep-17.

The average MCP during different time-periods of the month was:

- * Morning (07:00 to 10:00 Hrs): Rs. 4.23 per unit
- * Day (11:00 to 17:00 Hrs): Rs. 4.18 per unit
- * Evening peak (18:00 to 23:00 Hrs): Rs. 6.53 per unit
- * Night (01-06 Hrs and 24 Hrs): Rs. 3.90 per unit
- A total of 5725 MU were cleared, which is increase with the 4061 MU traded last month and almost at par with 4239 MU traded in Sep-17. On a daily average basis about 191 MU were traded.
- With average daily sell and buy bids were 237 MU and 158 MU respectively.
- The One Nation, One Price was realized for 28 days in the month of Sep-18.
- On daily average basis 645 participants traded in the day-ahead power market in September-18.

RENEWABLE ENERGY CERTIFICATE MECHANISM (REC) FROM Oct-17 TO Sep-18



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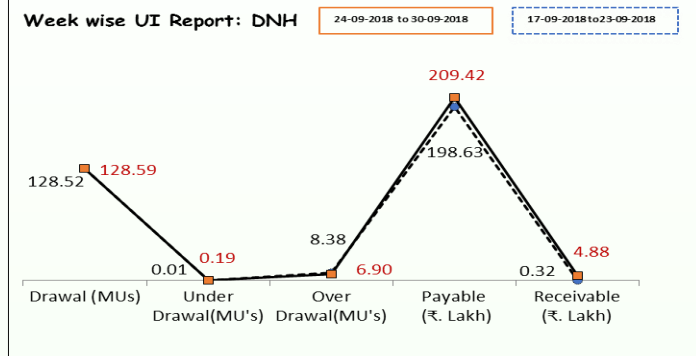
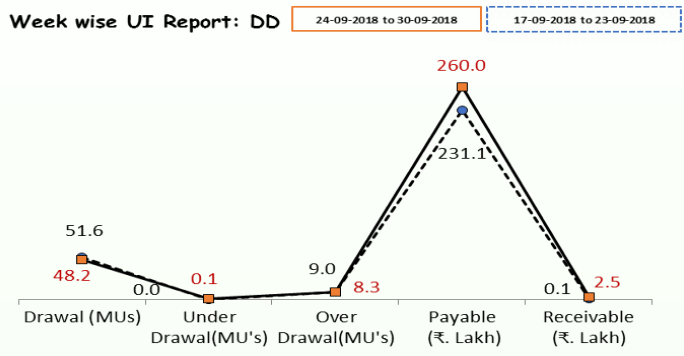
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DEVIATION CHARGES

[DD User Click to get UI Report](#)
[DNH User Click to get UI Report](#)

DD-Deviation Charges						
FY 2018-19	Drawl (MUs)	Schedule (MUs)	UI Drawl (MUs)		UI Charges(₹. Lakh)	
			Under Drawl	Over Drawl	Payable	Receivable
Cumulative Total up to Sep-18	1332.05	1167.89	1.49	98.15	4637.70	30.66
24-09-2018 to 30-09-2018	48.20	40.05	0.10	8.25	260.01	2.54
24-09-2017 to 30-09-2017	48.18	42.25	0.10	6.03	137.35	1.91
17-09-2018 to 23-09-2018	51.56	42.52	0.01	9.04	231.06	0.09
17-09-2017 to 23-09-2017	47.04	41.25	0.13	5.91	125.78	2.38

DNH-Deviation Charges						
FY 2018-19	Drawl (MUs)	Schedule (MUs)	UI Drawl (MUs)		UI Charges (₹. Lakh)	
			Under Drawl	Over Drawl	Payable	Receivable
Cumulative Total up to Sep-18	3239.23	3094.33	5.11	150.01	3904.06	99.62
24-09-2018 to 30-09-2018	128.59	121.87	0.19	6.90	209.42	4.88
24-09-2017 to 30-09-2017	118.42	113.69	0.12	4.85	107.92	2.30
17-09-2018 to 23-09-2018	128.52	120.16	0.01	8.38	198.63	0.32
17-09-2017 to 23-09-2017	115.81	113.38	1.05	3.47	69.10	14.24



DD						
Month	FY 2017-18 (All Freq Hz)			FY 2018-19 (All Freq Hz)		
	Under Drawl in MU's	Over Drawl in MU's	UI Rate in ₹/Unit	Under Drawl in MU's	Over Drawl in MU's	UI Rate in ₹/Unit
April	1.29	(11.30)	(2.48)	0.30	(19.56)	(2.79)
May	0.87	(15.28)	(2.19)	0.57	(27.91)	(3.43)
June	1.09	(17.98)	(2.16)	0.23	(24.82)	(2.61)
July	0.97	(15.89)	(2.26)	0.16	(31.37)	(2.54)
Aug	0.19	(24.00)	(2.3)	0.10	(28.24)	(2.52)
Sep	0.39	(24.70)	(2.64)	0.14	(33.75)	(2.92)
Oct	0.13	(29.42)	(2.79)	-	-	-
Nov	0.22	(22.01)	(2.71)	-	-	-
Dec	0.66	(16.60)	(2.50)	-	-	-
Jan	1.04	(18.20)	(2.63)	-	-	-
Feb	1.33	(12.58)	(2.58)	-	-	-
Mar	0.99	(19.63)	(2.99)	-	-	-
Total	9.18	(227.6)	(2.55)	1.49	(165.65)	(2.81)

DNH						
Month	FY 2017-18 (All Freq Hz)			FY 2018-19 (All Freq Hz)		
	Under Drawl in MU's	Over Drawl in MU's	UI Rate in ₹/Unit	Under Drawl in MU's	Over Drawl in MU's	UI Rate in ₹/Unit
April	1.91	(21.52)	(2.31)	0.39	(22.51)	(2.70)
May	13.54	(2.97)	(1.49)	2.03	(16.76)	(3.40)
June	9.26	(3.65)	(1.98)	1.43	(15.89)	(2.57)
July	6.71	(6.66)	(0.96)	0.43	(25.32)	(2.37)
Aug	3.50	(14.68)	(2.15)	0.33	(35.64)	(2.35)
Sep	2.06	(22.87)	(2.74)	0.50	(33.89)	(2.73)
Oct	1.53	(28.73)	(2.67)	-	-	-
Nov	2.23	(17.81)	(2.87)	-	-	-
Dec	1.09	(21.60)	(2.53)	-	-	-
Jan	0.47	(26.01)	(2.45)	-	-	-
Feb	0.28	(22.83)	(2.46)	-	-	-
Mar	1.03	(26.07)	(2.73)	-	-	-
Total	43.61	(215.4)	(2.65)	5.11	(150.01)	(2.63)

REACTIVE ENERGY CHARGES FOR DD & DNH

FY 2018-19	DD-High Voltage				DD-Low Voltage				DNH-High Voltage			DNH-Low Voltage		
	GUJARAT		ISTS		GUJARAT		ISTS		ISTS			ISTS		
	Dok-diu	Una-diu	Mgr-Vap HV	Total	Dok-diu	Una-diu	Mgr-Vap LV	Total	Kpd-Vap HV	Kdl-Vap HV	Total	Kpd-Vap LV	Kdl-Vap LV	Total
Cumulative Total MVARh till Sep-2018	-2517.6	-1241.3	115582.2	111823.3	50.0	5.3	-5.5	49.8	103847.0	66690.4	170537.4	6409.8	3646.9	10056.7
Cumulative Total Charges in (₹) till Sep-18	202956.5	-4104.5	-8609297.0	-8410445.0	7000.0	743.0	-770.0	6973.0	-11776649.0	-6943045.5	-18719694.5	897372.0	510566.0	1407938.0
17-09-2018 to 23-09-2018	8.7	2.0	5852.1	5862.8	14.5	3.7	0.0	18.2	5465.2	4037.0	9502.2	5465.2	4037.0	9502.2
Charges in (₹)	-1218.0	-280.0	-819294.0	-820792.0	2030.0	518.0	0.0	2548.0	-765128.0	-565180.0	-1330308.0	765128.0	565180.0	1330308.0
24-09-2018 to 30-09-2018	2.0	-0.3	3853.5	3855.2	26.6	-1.3	0.0	25.3	3676.8	922.6	4599.4	40.7	-191.6	-150.9
Charges in (₹)	-280.0	42.0	-539490.0	-539728.0	3724.0	-182.0	0.0	3542.0	-514752.0	-129164.0	-643916.0	5698.0	-26824.0	-21126.0

Note: The REC chargers has been revised to 13.5 paisa/KVARh from Apr-2017 as per clause of 6.6 of revised IEGC.

Note: Bracket Value () indicates the negative value(-ve). Note: For REC table -Ve Value indicates Receivable & +Ve Value indicates Payable.



POWER SECTOR ACTIVITIES



* MNRE

- Revised Schedule-Last date of registration is extended up to 1st November, 2018 for training programme on " Solar Radiation Resource Measurement, Assessment and Calibration", 15-16, Nov-2018.
- Instructions regarding submission of Proposals and Project Completion Reports for Standalone Solar Power Plants under Off-grid and Decentralized Solar PV Applications Programme in Phase III for Financial Years 2018-19 and 2019-20.
- Re-Tender Document For Supply, Installation & Commissioning of Electrochemical Capacitance Voltage (ECV) Profiler at National Institute of Solar Energy, Gurugram, Haryana.
- Extension of Self Certification Relaxation for Quality Control Order on SPV Modules, Components and Devices Order 2017.
- Engagement of Project Supervisor (Technical) (Two) purely on short Term contract Basic in National Institute of Solar Energy.
- Wind Turbine Models included in the RLMM after declaration of new procedure (i.e 27th October 2016).

* MOP

- Play Organized On theme of Swachhta.
- Shramdaan activity for Swachhta during "Swachhta Hi Seva" Campaign by Ministry of Power Officials/Staff members at Pillanji Village, New Delhi.

* CEA

- Annual Report, 2017-2018 of Central Electricity Authority- reg.
- Technical Specification for Agro Residue Based Biomass Pallets for Co-firing in Coal Based Thermal Power Plants.

* GERC

- Order No. 4 of 2018 - Additional Surcharge payable by Open Access consumers for the control period 1st October, 2018 to 31st March, 2019.
- Proposal/bids invited from consultancy firms to provide assistance to Gujarat Electricity Regulatory Commission (GERC) in the work of Mid-term Review of ARR for FY 2019-20 & FY 2020-21, Truing up for FY 2017-18 & Determination of Tariff for FY 2019-20 for various Utilities of Gujarat.

* JERC

- Public Hearing on 30th October, 2018 at 10.00 A.M. at Goa in respect of approval of Business Plan Petition No.265/2018 for the Multi Year Tariff Control Period from FY 2019-20 to FY 2021-22 for Electricity Department, Goa.

* SECI

- Extension Of Bid Submission Deadline-VI : Implementation Of ERP On Cloud Platform, Supply Of Licenses Including Operation & Maintenance (O & M) At Solar Energy Corporation Of India Limited (SECI)
- Extension Of Bid Submission Deadline-V : Selection Of Solar Power Developers For Setting Up Of 10GW ISTS Connected Solar PV Power Plant Linked With 3GW (Per

Annum) Solar Manufacturing Plant Under Global Competitive Bidding (Phase-I)

- Extension Of Bid Submission Deadline-VII : Selection Of Solar Power Developers For Setting Up Of 150MW (50MW X 3) Grid Connected Floating Solar Power Projects To Be Installed At Rihand Dam, UP.

* MISCELLANEOUS

- Himachal Pradesh govt. to buy 30 electric buses.
 - ⇒ The cost of each nine-meter-long bus was Rs. 76.97 lakh, with a capacity of 31 seats. Thakur claimed similar buses were bought by the previous Congress government for Rs 2 crore each
- California utilities say wind-driven outages still possible.
- Bengaluru's highrises may need to have e-charging points soon.
 - ⇒ Bescom will set up 11 charging stations across the city in six months, and has identified places like Peenya, Mathikere, Yelahanka, Banaswadi, Indiranagar, HAL II Stage, Mahadevapura and Murugeshpalya.
- Piyush Goyal to receive University of Pennsylvania's top energy policy prize
 - ⇒ Goyal is being recognized for directing a fast-track effort to electrify 18,000 villages in remote parts of India.
- In UP, poor may get electricity connections for just Rs 10.
 - ⇒ UP Power Corporation Limited is planning to launch a new scheme for providing electricity connections easily and swiftly.
- Power demand matches summer's as temp rises in Mumbai.
 - ⇒ Power industry expert Ashok Pendse said there is a direct connect between rising temperature and power demand. If temperature goes beyond 28 degrees Celsius, power generation has to be increased simultaneously.
- States to get Rs 100 Cr award for being efficient under Saubhagaya scheme.
- Kerala readies to welcome electric vehicles.
- Maharashtra CM to inaugurate three schemes of state power utility.
- Gujarat moves SC to ensure power plans not disrupted.
 - ⇒ An expert committee has recommended opening up the power purchase agreements to allow fuel cost pass through and an option to the cos to extend the power purchase contracts by 10 years.
- Philips Lighting to increase prices by 3-5% on select products.
- UP govt. asks discoms to set up power police stations in all districts by Nov 1.
 - ⇒ Chief secretary, UP government, Anup Chandra Pandey recently gave orders to the effect. These will be dedicated police stations to crackdown on power theft.
- Demand for green buildings growing in Andhra Pradesh, says IGBC.
- Gurugram asks EESL for 18,000 more street lights for dark stretches
- Kenya's KenGen says new geothermal plant nearly ready.

Note: Click on Head lines for More Info



- ⇒ Geothermal steam, hot underground steam found in the Rift Valley which is used to drive turbines for electricity production, is the second biggest source of Kenya's annual power generation of 2,336 MW, accounting for 26.84 percent of the total.
- **Trump administration kills contract for plutonium-to-fuel plant.**
- **Punjab: Power cost rises again as PSPCL hikes fuel cost adjustment surcharge.**
 - ⇒ The PSPCL has notified the September 20 decision taken by the board of directors in which the FCA surcharge was revised at 12p a unit for both metered and unmetered power connections.
- **Retail inflation inches up to 3.77% in September; August IIP at 4.3%.**
- **Tata, Adani Power surge up to 14% as SC to examine tariffs.**
- **Railways conduct trial run for end-to-end electric engine trains; to bring down carbon emission to zero.**
- **Spain's Iberdrola sells British power assets to Drax for 800 million euros.**
 - ⇒ The plan, which is included in its 2018-2022 strategy to rotate assets worth 3 billion euros, leaves the Spanish group with only wind power generators in Britain.
- **With its solar switch, Allahabad University to pare annual bill by Rs 40 lakh.**
 - ⇒ In a move which will save the institution Rs 40 lakh annually in electricity bills, the Allahabad University (AU) got solar panels installed in 23 buildings of its four campuses.
- **Germans to pay slightly lower levy for renewable energy in 2019.**
 - ⇒ Germans pay the highest electricity bills in Europe as state-induced taxes and fees account for over 50 percent of power bills.
- **India to achieve 76% of renewable energy target by 2022: Wood Mackenzie.**
 - ⇒ India is targeting 100 GW of solar capacity and 75 GW of wind power by 2022.
- **South Western Railway goes the solar way, 19 buildings get panels.**
- **Getting clearances major hindrance for hydro projects: Arunachal Pradesh CM Pema Khandu.**
 - ⇒ The CM said that one of the major hindrances in its growth is the long duration for the hydro projects to obtain clearances that extends beyond 10 years.
- **National Green Tribunal directs state governments, Centre to improve ambient air quality.**
- **India must speed up renewable energy generation: Experts.**
- **SECI's manufacturing-linked solar bids put off, for fourth time.**
 - ⇒ India is dependent on China for 85% of its solar equipment and developers find it difficult to compete with Chinese solar panels without any support from the government.
- **India may miss its target to conduct 10 GW wind auctions in FY19: Ind-Ra.**
- **German consumers can expect green power surcharge to fall in 2019.**
 - ⇒ The surcharge under the renewable energy act could amount to 6.51 euro cents (\$7.52 cents) per kilowatt

hour (kWh) in 2019 after 6.792 cents applied in 2018, BEE said.

- **Weaker solar radiation, poor ratings of discoms keep solar tariff above Rs 3/unit in UP.**
 - ⇒ The relatively higher tariffs reached in UP are attributed to its weaker solar radiation and poor financial ratings of its discoms, which raised the cost of borrowing for UP-based projects.
- **Secret, solar-powered tunnel found on US-Mexico border.**
- **India's renewable energy capacity to reach 140 GW by 2023: CRISIL.**
 - ⇒ The government is planning to ramp up the country's green energy capacity base to 175 GW by 2022 from the current 72 GW.
- **LPG penetration in Northeast to cross 80% by March 2019.**
- **India's oil demand to rise by 5.8 million barrels per day by 2040: OPEC.**
 - ⇒ Global oil demand is expected to increase by 14.5 million bpd from 2017 to 111.7 million bpd in 2040, OPEC said in its latest report, issued in September, 2018.
- **PM Narendra Modi asks oil producers to review terms of payment.**
- **Oil prices rise on signs of falling Iranian oil exports.**
- **Punjab: Stubble burning continues, farmers say they 'have no option'.**
- **India to partner developing countries to achieve sustainable development goals.**
- **India coal import forecast raised by 6MT in 2018 on local supply crunch.**
- **Govt. to give priority to state power producers for coal supply; Pvt. plants in lurch.**
- **New World Bank fund to insure against climate disasters.**
- **Govt. wants CIL to liquidate 10MT of stocks by end of October to address demand surge.**
- **India among most vulnerable countries for extreme weather events: Green bodies.**

List of Abbreviations

• ARR :Aggregate Revenue Requirement	• ISTS :Inter-State Transmission System
• BEE :Bureau of Energy Efficiency	• JERC :Joint Electricity Regulatory Commission
• BESCOM :Bangalore Electricity Supply Company	• LPG :Liquefied Petroleum Gas
• BPD :Barrels Per Day	• MERC :Maharashtra Electricity Regulatory Commission
• CEA :Central Electricity Authority	• MNRE :Ministry of New & Renewable energy
• CERC :Central Electricity Regulatory Commission	• MOP :Ministry of Power
• CIL :Coal India Limited	• MT :Million Tonne
• CM :Chief Minister	• MW :Megawatt
• CRISIL :Credit Rating Information Services of India Limited	• OPEC :Organization of the Petroleum Exporting Countries
• DISCOM :Distribution Company	• PM :Prime Minister
• EESL :Energy Efficiency Services Limited	• PSPCL :Punjab State Power Corporation Limited
• ERP :Enterprise resource planning	• RLMM :Revised List of Models and Manufacturers
• FCA :Fuel Cost Adjustment	• SC :Supreme Court
• FY :Financial Year	• SECI :Solar Energy Corporation of India Limited
• GERC :Gujarat Electricity Regulatory Commission	• SPV :Solar Photovoltaic
• GW :Giga Watt	• UP :Uttarpradesh
• IGBC :Indian Green Building Council	
• Ind-Ra :India Ratings	

ALL INDIA LIST OF ELEMENTS COMMISSIONED DURING THE FY 2018-19

All India List of Substations, Transmission Lines & Generators Commissioned during Aug-2018

◆ Substations

- * 765/400 KV Srikakulam S/S (3000 MVA)
- * 765/400 KV Srikakulam (1500 MVA)
- * 765/400 KV Srikakulam (1500 MVA)
- * 400/220 KV Garividi (Marala) (630 MVA)
- * 400/220 KV Lapanga S/S (315 MVA)
- * 400/220 KV Nirmal ICT-III (315 MVA)
- * 400/220 KV Amargarh (GIS) S/S (630 MVA)
- * 400/220 KV Indore PG (ICT No.I) (500 MVA)
- * 400/220 KV Nirmal (ICT No. I) (MVA)
- * 400/220 KV Nirmal (ICT No. II) (MVA)
- * 400/220 KV Nirmal (ICT No. III) (MVA)
- * 220/66 KV Jigani (2x150) (300 MVA)
- * 220/66 KV Mallat (Manvi) S/S (200 MVA)
- * 220/66 KV R.K. Puram - I (GIS) (320 MVA)
- * 220/66 KV Kawant S/s (160 MVA)
- * 220/33 KV R.K.Puram -II (GIS) (200 MVA)
- * 220/33 KV inganghat (100 MVA)
- * 220/33 KV Narasinghpur S/S (40 MVA)
- * 220/33 KV Harrawala (Dehradun) IIP (2x50) (100 MVA)
- * 220/33 KV New Town AA-III (50 MVA)
- * 220/33 KV Morti (New) - ICT-II (60 MVA)
- * 220/132/33 KV Hapur (New) (320 MVA)
- * 220/132 KV Siyana ICT-I (160 MVA)
- * 220/132 KV Jalna MIDC (Nagewadi) (ICT) (100 MVA)

- * 220/132 KV Bhawanimandi S/S (160 MVA)
- * 220/132 KV BTPS (AEGCL) (100 MVA)
- * 220/110 KV Central (CMRL) (2x100) (200 MVA)
- * 220/110 KV Thiruvannamalai (Addl.) (160 MVA)

◆ Transmission Lines

- * 765 KV Raigarh (Kotra) - Champa (Pool) (Quad) (CWRTL-TBCB)
- * 765 KV Sipat STPS - Bilaspur (Quad) (STL-TBCB) S/C APL 24
- * 765 KV Sipat-Bilaspur (CKT No.III)
- * 765 KV Kotra(Raigarh PS)-Champa (CKT No.II)
- * 400 KV Farakka - Baharampur (Twin HTLS)
- * 400 KV LILO-In of Cuddapah - Hindupur at N.P. Kunta
- * 400 KV Srikakulam - Garividi (QM) (PSITL - TBCB)
- * 400 KV Akal -Jodhpur (New)
- * 400 KV Anta -Kota (PG) (Extension)
- * 400 KV LILO of Chabra TPS -Dahra at Anta (Ckt. -II)
- * 400 KV LILO of Jaipur - Nirmal at Sundilla LI (Ckt.-II)
- * 400 KV Samba - Amargarh line (NRSS-XXIX TL -TBCB)
- * 400 KV NP Kunta-Cudapa (CKT No.II)
- * 400 KV NP Kunta-Cudapa (CKT No.III)
- * 400 KV Nirmal-Sundilla (CKT No.II)
- * 400 KV Nirmal-Sundilla (CKT No.II)
- * 400 KV Ramadugu-Medaram (CKT No.II)
- * 400 KV Srikakulam-Maradam (CKT No.I)
- * 400 KV Srikakulam-Maradam (CKT No.II)
- * 220 KV Alipurduar - Alipurduar (PG)

- * 220 KV Begusarai-Purnea line
- * 220 KV Deepalpur - Rai Khewra at RGEC Kundli S/s
- * 220 KV Gavasad - Bhayali (DFCC) line
- * 220 KV Gorakhpur - Hata
- * 220 KV Hatkoti - Gumma
- * 220 KV Jodhpur (New) - Barli (TK)
- * 220 KV Kishanganj (New) - Madhepura
- * 220 KV Korba - Vishrampur (2nd Ckt.) 5
- * 220 KV LILO of 2nd ckt. YTPP - Abdullahpur line at Rampur Kambayan
- * 220 KV LILO of Bhanjanagar - Meramundali at Narasinghpur
- * 220 KV LILO of Korba - Vishrampur at Churri
- * 220 KV LILO of Rishikesh-Dehradun at Harrawala
- * 220 KV Mohangadda - Sarsawa
- * 220 KV Radhanpur - Sankhari line
- * 220 KV Raigarh CG-Raipagrh PG (CKT No.III)

◆ Generators

◆ Thermal , Hydro and Nuclear

- * Gadarwada Unit No. 1 (800 MW) was commissioned on 30-08-2018

◆ Hydro

- * Nil

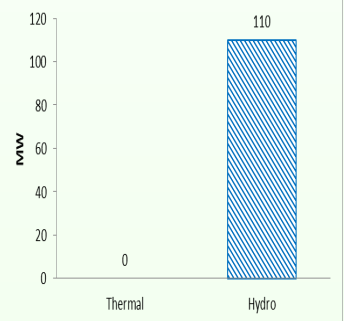
◆ Nuclear

- * Nil

All India No. of Generators Commissioned during FY 2018-19 (till Aug-2018)

Month	Thermal					Hydro					Nuclear				
	WR	NR	NER	ER	S R	WR	NR	NER	ER	SR	WR	NR	NER	ER	SR
Apr-18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May-18	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Jun-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug-18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0

Additional Generation Capacity During FY 2018-19(Till Aug-2018)



All India No. of Line Reactors (LR), Transmission Lines (T/L), Substations (S/S) and Bus Reactors (BR) Commissioned for FY 2018-19 (till Aug-2018)

Month	800 KV			765 KV			400 KV			230 KV			220 KV			Total						
	T/L	S/S	LR	T/L	S/S	BR	LR	T/L	S/S	BR	LR	T/L	S/S	BR	LR	T/L	S/S	BR				
Apr-18	0	0	0	4	4	0	0	14	10	0	0	0	0	0	0	8	5	0	0	26	19	0
May-18	0	0	0	0	2	0	0	19	12	0	0	3	0	0	0	10	8	0	0	32	22	0
Jun-18	0	0	0	4	1	0	0	8	9	0	0	0	0	0	0	15	8	0	0	27	18	0
Jul-18	0	0	0	2	0	0	0	10	9	0	0	0	3	0	0	16	17	0	0	28	29	0
Aug-18	0	0	0	4	3	0	0	15	8	0	0	0	0	0	0	16	17	0	0	35	28	0
Total	0	0	0	14	10	0	0	66	48	0	0	3	3	0	0	65	55	0	0	148	116	0

Note 1: Data is taken from CEA and NLDC websites.

Note 2: No data for Branch Reactors (BR) and Line Reactors (LR) for the month of Aug-2018.

* Tabulated Data is up to 220 KV level.

CEA : [Read more...](#)

NLDC: [Read more...](#)



POWER SYSTEM SOLUTIONS THAT WORK FOR YOUR BUSINESS

Can You Imagine a World Without Power? ...Because, we can't.

We, at Panacean Energy Solution are committed to our core values integrity, excellence, enriched innovation and stand committed to nurture our talented work force and continually enhance our local insights and global perspective to bring about paradigm shift in the Indian Power Sector, through providing real solution.

We assist you to understand impact of Electricity Regulations applicable to you by providing tailor made gist of the new regulatory developments on case to case basis. With nation-wide experience of our team, and also with the valuable experience of handling overseas projects, we can assist you in planning and operations of your system.



Why Panacean?

Because....We Can Energize Your Business

We're extremely serious about being your power solution advocate. We envision an Indian Power Sector enriched with solutions to enhance its capability to ensure quality power to end consumers with reliability, efficiency and economy on ethical grounds through providing "IT and network" solutions to different segments of Indian Power Sector. Maximize long-term return to Owner.

Our Clients Prefer Working Directly With Us

Because we arm them with valuable resources for contract negotiation. We help them manage the minutest detail behind their big business decisions.

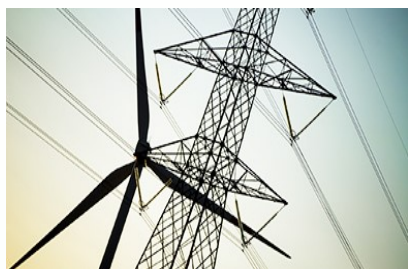
Panacean Energy Solution



PanaCean[®]
(An ISO 9001:2015 Company)
More Power to You



Area of Services



Power Services



- ◆ Power System Studies
- ◆ Utility Load Forecast
- ◆ Transmission and distribution planning
- ◆ Reactive Power Optimization
- ◆ Fault MVA calculation and improvements
- ◆ GPS/GIS Asset Mapping
- ◆ Load survey
- ◆ Street light survey
- ◆ Policy making
- ◆ Implementation of Electricity Act 2003 and State Regulations
- ◆ Operation and maintenance of substation
- ◆ Power System Training
- ◆ PSS@E Training
- ◆ Power Procurement under Case-I and Case-II bidding
- ◆ Tender Preparation and Management
- ◆ Project Management Consultant
- ◆ DSM Management
- ◆ Drawl and Generation schedule optimization
- ◆ Regulatory Support
- ◆ DPR preparation for submission to JERC / CEA.
- ◆ IPDS Scheme
- ◆ UDAY Scheme
- ◆ Smart city Implementation
- ◆ Techno commercial feasibility of substation
- ◆ Techno-commercial feasibility of transmission line
- ◆ T&D CAPEX optimization
- ◆ Distribution business optimization
- ◆ Transmission business optimization
- ◆ Optimal power scheduling for system operators

- ◆ Open Access implementation, operation and management
- ◆ Resources optimization in transmission and distribution business
- ◆ Training in system operation
- ◆ Support in Regulatory matters
- ◆ Energy Accounting

Renewable Energy



- ◆ Detailed Project Report preparation
- ◆ Feasibility Study for Renewable Power Generation
- ◆ EPC of Solar Power
- ◆ O&M of Renewable Power Plant Operation

Energy Efficiency

- ◆ Energy Audit
- ◆ Development of State Designated Agency
- ◆ Development of State Nodal Agency
- ◆ Power Quality Management



IT Services

- ◆ Software for Transmission and Distribution Companies
- ◆ Regulatory Information Management System
- ◆ Complaint Management System
- ◆ Customer Care Centre
- ◆ Standard of Performance
- ◆ Document Management System
- ◆ ERP for Power Company
- ◆ Energy management system
- ◆ Optimal Power Schedule

Area of Clients

Distribution Sector

- ◆ Electricity Department of Daman and Diu
- ◆ DNH Power Distribution Corporation Ltd.

Transmission Sector

- ◆ Maharashtra State Electricity Transmission Company Ltd.
- ◆ Reliance Infrastructure Ltd.
- ◆ Electricity Department of Darda and Nagar Haveli
- ◆ Uganda Electricity Transmission Company Ltd.

Generation Sector

- ◆ Essar M.P. Power Ltd.
- ◆ Ind-Barath Power

Others

- ◆ Indian Institute of Technology, Bombay
- ◆ Alok Industries
- ◆ Abhijeet Ferrotech Ltd.
- ◆ Reliance Industries Ltd.
- ◆ Macquarie Infrastructure
- ◆ IXORA Construction
- ◆ ICRA Management and Consultancy Services
- ◆ CLP India Pvt. Ltd., Mumbai

Reach us at

Registered Office

203, Antartica – D, Lodha Aqua CHS Ltd., Opp. to Thakur Mall, Mahajanwadi, Mira Road (E) Thane – 401107, Maharashtra.

Corporate Office

Mumbai

Gala No. 209, 2nd Floor, Nikisha Ind. Estate, Premises No 2, Pandurang Wadi, Mira Road (East), Thane- 401107.

Silvassa

Flat No:A1/8, 2nd Floor, above Om Sai medical store, Opp Jalaram Temple, Kilvani naka, Silvassa - 396230.

Daman

1/320, Bhidbhajan Mahadev Chawl, Wadi Falia, New Vegetable Market, Nani Daman, Daman – 396210.

Surat

206, Santiniketan Flora Business Hub, Nr. Sanskartirth Gyanpith School, Abrama Road, Mota Varachha, Surat – 394105.



PANACEAN AT WORK FOR YOU

CONNECTING YOUR POWER NEEDS TO THE PANACEAN RESOURCES

Introduction
Power UI (Power System User Interface) is a cloud-based application specifically designed for power sectors organizations mainly, Transmission Utilities and Distribution Utilities. Presently, Power UI integrates various power system utilities such as Infrastructure management (MAPS), Complaint Management (CMS), Maintenance Management System (MMS), Regulatory Information Management system (RIMS), Inventory Management (Store).

Simple and Intuitive UI
We have kept in mind simplest ever user interface while designing the software. The user interface is so intuitive that, anyone having basic knowledge of operating computer will be able to handle various applications with ease. The technical modules only require basic training for successful operation. The software will have inbuilt guiding system for assuring hassle free completion of almost all activities.

Cloud Based:
The software run from cloud and is accessible over internet / intranet. This avoids installation of copies of software in each system. Management and upgradation of this cloud based application can become easier than ever.

Auto Backup:
The data of all enterprise applications is of utmost importance. Power UI comes with Auto Backup facility where an authorized person can schedule auto backup of full / partial data of the software. In case of data lost or hardware failure, no or minimal data is lost.

Event Notification:
The user and/or administrator will not be unaware of activities and events being carried out by the members. All activity updates will be delivered to the concerned person via appropriate notification. Apart from inbuilt notification system, such alerts can also be combined with Email and SMS notification.

IT SUPPORT TO YOUR POWER SOLUTIONS

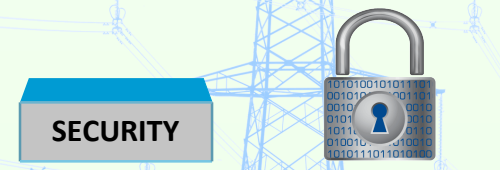
- INFRASTRUCTUTR MANAGEMENT (MAPS)
- COMPLAINT MANAGEMENT SYSTEM (CMS)
- REGULATORY INFORMATION MANAGEMENT SYSTEM(RIMS)
- MAINTENANCE MANAGEMENT SYSTEM(MMS)
- INVENTORY MANAGEMENT(STORE)
- OPTIMAL POWER SCHEDULE

ONLINE ACCESS BROWSER COMPATIBILITY



INDEPENDENT OF DATABASE

The software is compatible with Oracle, Microsoft SQL, and MySQL database.

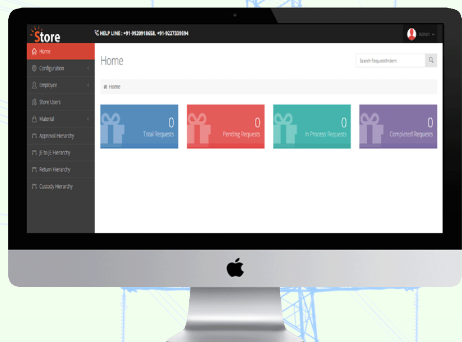
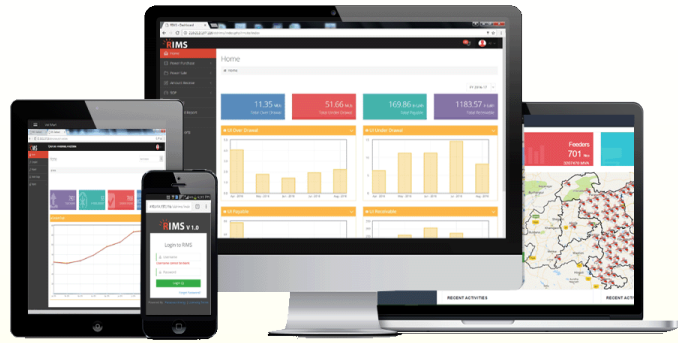


SECURITY

FLEXIBLE SOLUTIONS FOR YOUR POWER NEEDS



LAPTOP, Tablet & Mobile



REGULATORY INFORMATION MANAGEMENT SYSTEM IMS

RIMS keeps track of power purchase, power sale, trading, DSM (formerly known as “UI”), SEM data, Reliability Indices etc. It translates every bit of information for successful derivation various reports as intended by State Electricity Regulatory Commission.

COMPLAINT MANAGEMENT SYSTEM MS

CMS enables utility to get in touch with its consumers. At one end it provides feedback and complaints of consumers, and on the other end it provides analytical tools for identifying time-bound resolving consumer complaints and improving consumer satisfaction.

INVENTORY MANAGEMENT SYSTEM (STORE):

Full proof inventory management is ensured by Store. With self-auditing feature of the software, it is ensured that no material is lost unknowingly. It ensures accountability at every step right from receipt of the material to usage of the material. It also provides handful information for material usage pattern, consumption of various material and its category, material expenses many more at micro level as well as macro level. This helps in improving our planning procedures and material management. Readily available audit reports enhances applicability of the module for financial compliances.

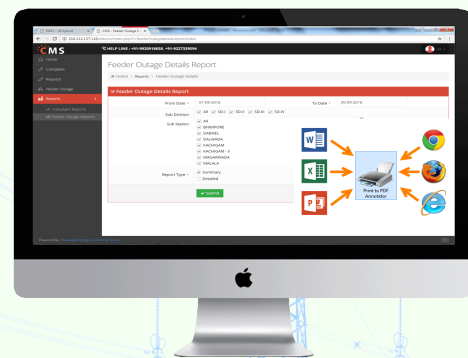
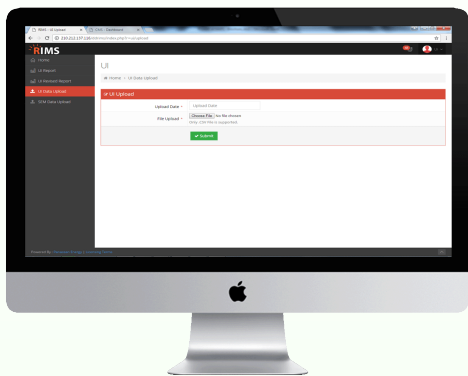
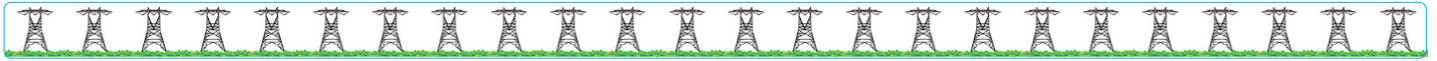


Transmission

Best Suitable Utilities

Distribution





M AINTENANCE MANAGEMENT SYSTEM (MMS)

MMS is designed to improve inbuilt maintenance management facilities and hence reduce the failure rates of equipment. With equipment being part of MMS, the concerned person is reminded for inspection and taking corrective actions. The module supports maintenance routines in various categories such as preventive maintenance, breakdown maintenance, event based maintenance, and routine maintenance. The software will ensure accountability of maintenance team and improves reliability of equipment in service.

This module contains all functionalities involved in maintenance management of a utility. Specific provisions for this objective are provided in this module as given below;

- ◆ Preventive & Routine Maintenance Operations
- ◆ Breakdown and Event based Operations

D ATA HANDLING:

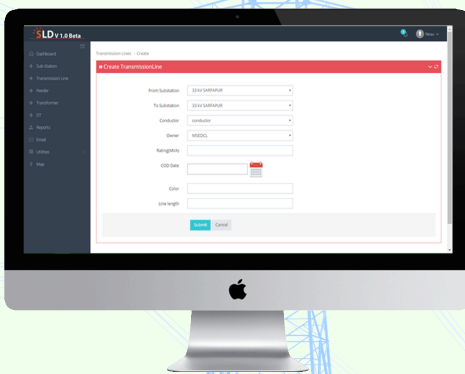
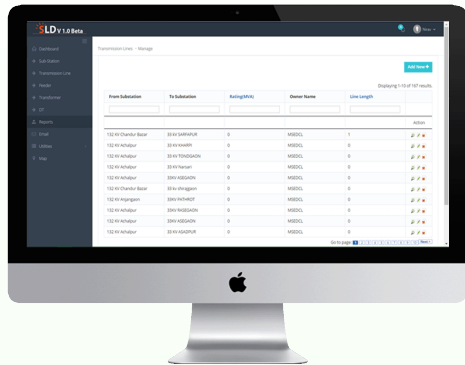
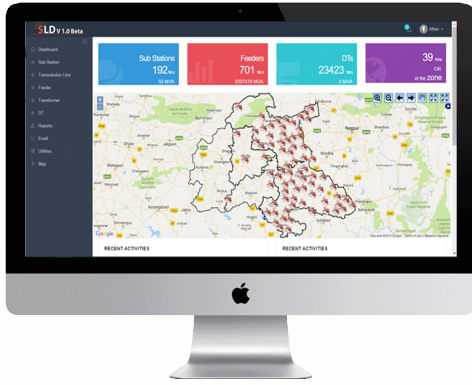
The software shall have a provision to handle huge volumes of data. Features such as import of excel files and import of data from databases shall be provided to facilitate bulk data entry and its corresponding map location display. Given below is a sample bulk data entry feature in POWERUI.

D ATA / REPORT EXPORT AND PRINTING FACILITIES:



O NLINE COMPLAINT AND FEEDBACK REPORTING

We are always listening to your feedback in terms of feature request, bug reporting, complaint, suggestion or any such thing for improving our service for your satisfaction. All such activities are only click away. User can report feedback online or by calling us on our helpline numbers.



MAPS includes infrastructure mapping of various assets of a utility. All assets with geotag (Longitude and Latitude) can be displayed and managed with ease.

POWERUI - MAPS

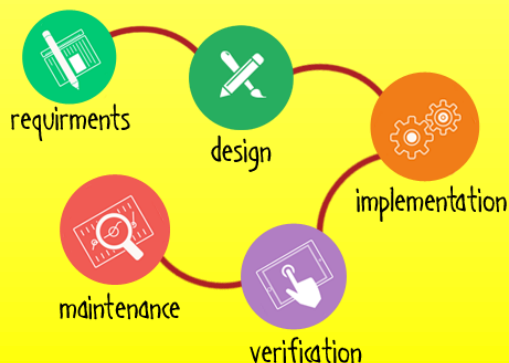
POWERUI MAPS is a map based application where all important assets and infrastructure of a Distribution company and transmission company are displayed on maps using their exact geographic coordinates. Display of all mapped distribution equipment on google maps, along with establishment of comprehensive database maintaining dynamic data of all attributes of major equipment in the distribution network is the core objective of this application. The map will be loaded with several customized user interactive features which aid in day to day monitoring and supervision of operations of the distribution network. Along with this, features facilitating operations such as assignment of O & M tasks to personnel based on equipment monitoring on map, tracking work status and review of operations on a large scale are provided in this application.

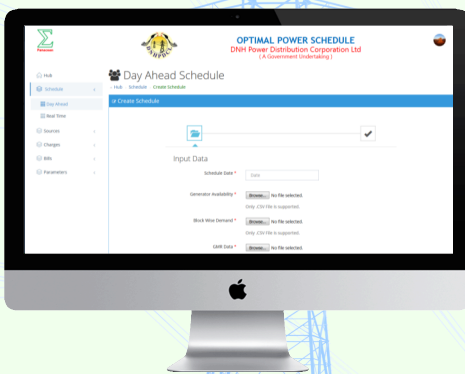
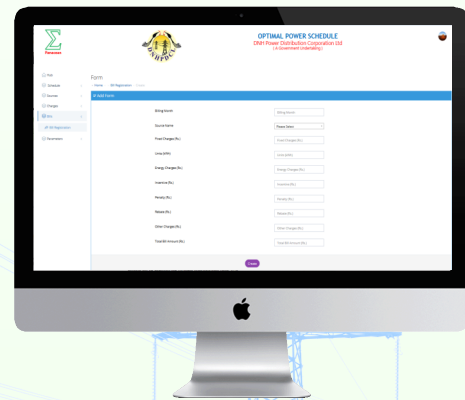
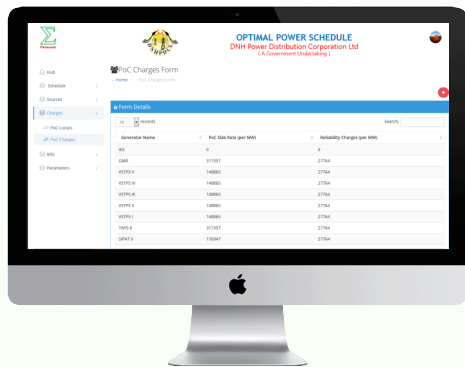
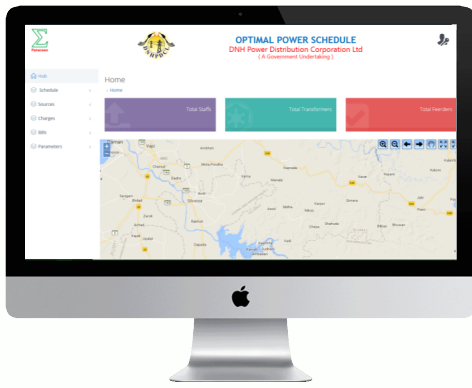
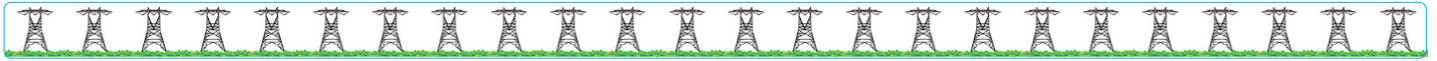
LAYER FACILITY:

LGiven a large and a highly dense network as that of MSDCL, selective viewing of different components of maps is required. The Layer facility enables the user to turn ON/OFF display of certain elements on the map. This feature provides greater clarity of viewing and ease of operation of the software.

DATABASE - MAP COMMUNICATION:

DProvision for any element to be inserted into the database or updation of any element in the database can be done through both map means and database means.

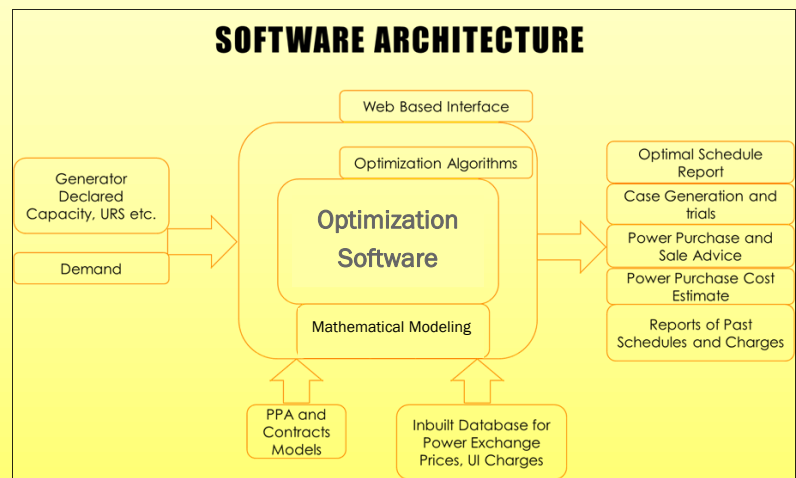




OPTIMAL POWER SCHEDULING SOFTWARE

The primary objective of this software shall be to provide Cost optimal generator wise day ahead schedule (MW) based on block wise demand of the utility and declared capacity of the generator; subject to all major constraints, with an account of all possible factors in determining the merit order of generators for each block.

Introduction: Optimal Power Scheduling is a custom made software for Power Distribution companies and load dispatch centres. Based on the principles of optimization, this software models complex issues of power purchase such as Power purchase agreements (PPA), Power Exchange, Un-scheduled Interchange (UI), and Un-requisitioned Surplus (URS) etc. into a single integrated platform using a industrial popular software to get an optimal power purchase solution. The schematic diagram of Optimal Power Scheduling Software is shown below,



FEATURES

- ◆ Day ahead and Intra-day optimal solutions for bidding.
- ◆ PPA Modelling concept, governing all PPA terms and Conditions.
- ◆ Analysis of Power Exchange and DSM prices based on Historical data.
- ◆ Indicative Power Purchase and Sale Solutions to bid optimally at the Power Market.
- ◆ Block wise Power Purchase cost estimation to explore all possible options to limit power purchase expenditure.
- ◆ Reports to analyse and summarize power scheduling over a period of time.