TOWARDS
NEW
INDIA

MISSION
24x7
AFFORDABLE CLEAN POWER FOR ALL
BILLION WATT SMILES

- 13,511 villages electrified out of 18,452 villages as on 19th May, 2017
- First ever power surplus year with no shortage of electricity and coal
- India’s rank increases to 26 in 2017 from 99 in 2015 on World Bank’s Ease of Getting Electricity Index
- 55.4 cr. tonnes coal production by Coal India in 2016-17 versus 46.2 cr. tonnes in 2013-14
  This 9.2 cr. tonne increase in the last 3 years took almost 7 years to achieve before 2013-14
- Amount of coal required to generate per unit of electricity has reduced by 8% in the last 3 years
- In 2016-17, for the first time, net capacity addition of renewable power exceeded that of conventional power
- Record low tariffs achieved in solar and wind energy
- Almost one-third drop in average all-India price of short term electricity purchased at the exchange in 2016-17 compared to 2011-12
- Highest ever increases in transmission capacity for transmitting affordable power to consumers
- UDAY Bonds worth about Rs. 2.32 lakh cr. issued leading to savings of ₹ 12,000 cr in interest
- Over 56 cr. LED bulbs distributed. 23 cr. by Government under UJALA and 33 cr. by private sector
- Transparently auctioned 24 mineral blocks with estimated value of resources over ₹ 1.1 lakh cr.
- New mobile apps launched for transparency, accountability and public convenience. Download by giving missed call to 18002003004
ANTYODAYA
SERVING THE LAST MAN
INSPIRED BY
PANDIT DEEN DAYAL
UPADHYAYA

Celebrating centenary year of Pandit Deen Dayal Upadhyaya’s birth as ‘Garib Kalyan Varsh’

“IT IS NOW THE SOLEMN PLEDGE OF ‘TEAM INDIA’ OF 125 CRORE COUNTRYMEN THAT THE TARGET OF PROVIDING ELECTRIC POLES, ELECTRIC WIRES AND ELECTRICITY TO THESE 18,500 VILLAGES WOULD BE ACHIEVED WITHIN THE NEXT 1,000 DAYS.”

- Hon’ble PM Shri Narendra Modi
on 15th August, 2015
ENSURING ELECTRICITY IN ALL HAMLETS AND HOUSEHOLDS

As on 19th May, 2017

**13,511** villages electrified out of **18,452** (as on 1st April, 2015) under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) as per data submitted by the states

**Significant Increase in Speed of Rural Electrification Benefitting the Poorest of the Poor**
- 22.4 lakh free connections to BPL households in 2016-17 versus 9.6 lakh during 2013-14

**Monitoring Quantity and Quality of Power in Rural Areas**
- Rural feeder monitoring scheme covers all 1 lakh rural and agriculture feeders

**4.2 Times Increase** in intensive electrification of villages from 14,956 villages in 2013-14 to **63,330** in 2016-17

24X7 Affordable, Reliable and Adequate Power for All Through DDUGJY

- Priority to Rural Electrification with about 76,000 cr. allocated
- Comprehensive coverage of villages under Sansad Adarsh Gram Yojana (SAGY)
- New scheme with complete flexibility in upgradation of rural distribution infrastructure

- Free connection to each BPL household
- Strengthening and augmentation of sub-transmission and distribution infrastructure
- Micro-grid and off-grid distribution network
- Separation of agriculture and non-agriculture feeders
- Meters for feeders, distribution transformers and consumers
FROM VILLAGE TO HOUSEHOLD

APP FOR TRACKING HOUSEHOLD ELECTRIFICATION

6,00,000 villages
17.92 cr. households

MAPPED

Drill down maps provide district-wise details of the status of village and household electrification.
Target of electrifying remaining 4.53 cr. rural households.

GRASSROOTS IMPLEMENTATION THROUGH GRAM VIDYUT ABHIYANTAS (GVAs)
For verifying progress

TRACK PROGRESS ON
www.garv.gov.in
ELECTRICITY
FOR A BETTER FUTURE

DAMPURA VILLAGE
Rajasthan

When GVA told residents of village Dampura in Rajasthan that their village would soon be electrified, their response was, “Till now, we were the ones to approach Government officials. But today, when you’ve come to us it makes us feel that our needs are being taken care of, and that our village will soon be electrified.” The villagers were happy and smiling with tears in their eyes. An old woman out of joy raised her hand in blessings and said, “Thanks, Modi ji, for serving us. He has lit up my village.”

KHAJUHAN VILLAGE
Bihar

As soon as Sachidand, an enterprising and responsible youth of Bihar’s Khajuhan village, got to know his village was part of Government’s Mission to electrify 18,452 villages, he pursued the cause devotedly through Twitter and other social media. The constant responses he received to his tweets encouraged him greatly.

The day the village got electricity, the residents had tears of joy streaming down their faces. The mood in the village turned festive, sweets were distributed all around, and the people showered praises on the efforts of Government of India to empower people and make them prosperous.
FROM POWER DEFICIT TO POWER SURPLUS

24x7 POWER

About 60 GW capacity addition in conventional power
- Highest ever for a period of 3 years
- Increase of over one-fourth from capacity installed till March 2014

All States onboard 24x7 ‘POWER FOR ALL’ with Uttar Pradesh’s signing of the MoU
- A joint initiative of Government of India and State Governments with the objective of providing 24x7 power to all

Mega Power Policy
- Facilitates competitive bidding for future Power Purchase Agreements (PPAs)
- Ensures long-term project viability
- Provides employment generation at large scale

From a net importer of electricity to net exporter of electricity
- Exported to Nepal, Bangladesh and Myanmar in 2016-17

Revised tariff policy 2016 for ensuring
- Electricity for all
- Efficiency for affordable tariffs
- Environment for a sustainable future
- Ease of doing business

New policy being formulated to harness Hydroelectric power

SHAKTI (SCHEME FOR HARNESING AND ALLOCATING KOYALA TRANSPARENTLY IN INDIA)

Transformational policy for auction and allotment of coal linkages will lead to -
- Affordable power
- Access to coal
- Accountability in allocation of coal
“India has brightened dramatically, is not a surprise. The country is home to more than its fair share of people living without electricity, and its Government has been working to change that by establishing a rural electrification program and investing heavily in renewable energy” – National Geographic

SOURCE: NASA, Betsy Mason & John Nelson, National Geographic dated on 29th April, 2017
TRANSMISSION
ONE NATION, ONE GRID, ONE PRICE

RAPID EXPANSION IN TRANSMISSION NETWORK
About 40% increase in transformation capacity from 5.3 lakh MVA in March 2014 to 7.4 lakh MVA in March 2017
Over one-fourth increase in transmission lines from 2.9 lakh ckm in March 2014 to 3.7 lakh ckm in March 2017

116% INCREASE IN AVAILABLE TRANSFER CAPABILITY TO SOUTH INDIA FROM MARCH 2014
To be nearly tripled to 18,400 MW by 2019
Reduced shortage of power due to removal of transmission constraints

PROJECTS WORTH ₹ 1.5 LAKH CR. COMMISSIONED DURING 2014-17
83% higher than projects commissioned during 2011-14

STABLE AND SECURE GRID
Not a single major disturbance has occurred since May 2014
VIDYUT PRAVAH
CONSUMER IS KING

REAL-TIME INFORMATION ON ELECTRICITY PRICE AND POWER AVAILABILITY

Surplus power is available at low rates which any State can purchase from the exchange.

www.vidyutpravah.in
TRANSPARENCY IN TRANSMISSION

TARANG
(TRANSMISSION APP FOR REAL TIME MONITORING & GROWTH)
Tracks upcoming transmission projects and progress of Inter-state and Intra-state transmission systems

www.tarang.website

E-TRANS FOR E-BIDDING AND E-REVERSE AUCTIONS IN TRANSMISSION PROJECTS TO DISCOVER BEST PRICES
DEEP
(DISCOVERY OF EFFICIENT ELECTRICITY PRICE)

FOR SHORT AND MEDIUM TERM POWER PROCUREMENT THROUGH TRANSPARENT E-BIDDING AND E-REVERSE AUCTION TO ENSURE DISCOMS GET THE BEST PRICE
A NEW DAWN FOR DISTRIBUTION SECTOR

**UJJWAL DISCOM ASSURANCE YOJANA (UDAY)**
is the most comprehensive power sector reform ever

**PERMANENT RESOLUTION**
of past, present and future DISCOM issues

Turnaround DISCOMs through
**FINANCIAL AND OPERATIONAL EFFICIENCY IMPROVEMENTS**

**27 STATES & UTs, MAKING UP FOR 97% OF TOTAL DISCOM DEBT, ARE ONBOARD UDAY**

**LOW ELECTRICITY PRICES FOR CONSUMERS**
- Savings of nearly ₹ 12,000 cr. for DISCOMs due to less rate of interest

**MASSIVE OPPORTUNITIES IN DISTRIBUTION SECTOR**
- Ripe for future investments
- Huge potential for job creation
HARYANA’S “MHARA GAON JAGMAG GAON” SCHEME
- 24 hours power supply in rural areas in return for commitment from villagers to curtail losses
- Dakshin Haryana Bijli Vitran Nigam (DHBVN) turned around its losses of more than ₹2,088 cr. in 2014 to a profit of ₹78 cr. in the first half of 2016-17

RAJASTHAN’S “MUKHYA MANTRI VIDYUT SUDHAR ABHIYAN”
- Reducing losses through various technical and anti-theft measures
- 100% feeders metered
- Self-help Women’s groups formed to stop power theft

UDAY MOBILE APP & PORTAL
ALLOWS PEOPLE TO
- Compare DISCOMs on the basis of 26 major performance parameters
- View ranking of States on the basis of DISCOM health

www.udad.gov.in
SMART POWER INFRASTRUCTURE

Integrated Power Development Scheme (IPDS) for quality and reliable 24x7 power supply to urban households

OUTLAY OF MORE THAN ₹65,000 CR.

CONSUMERS CAN MONITOR ELECTRICITY SITUATION IN CITIES SHOWS PROGRESS ON THE INTEGRATED POWER DEVELOPMENT SCHEME (IPDS)

www.urja_india.co.in
Power cut information sent through SMS and email in advance to nearly 9 cr. consumers
Historic power cut data can be checked and compared

For the first time ever, people can lodge complaints through common helpline number 1912, making DISCOMs accountable

Onboard: 44 DISCOMs of 25 States and UTs

www.urjamitra.com
PRAKASH PATH

**UJALA** (Unnat Jyoti by Affordable LEDs for All)
World’s largest LED distribution programme
Consumers saving about ₹ 12,000 cr. in electricity bills

**ENERGY EFFICIENCY**
Between 2014-17, Demand Side Management (DSM) brought down annual increase in energy generation from 8.61% to 5.74%

**OVER 7 LAKH ENERGY EFFICIENT FANS DISTRIBUTED**
Can reduce electricity bills by about ₹ 400-500 per year

**OVER 18.5 LAKH LED TUBE LIGHTS DISTRIBUTED**
Costs ₹ 230 versus ₹ 400-600 for a fluorescent tube light

**OVER 20 LAKH LED STREET LIGHTS INSTALLED UNDER STREETLIGHT NATIONAL PROGRAMME (SLNP)**

Transparent procurement reduced price of LED bulbs by 87%

Wattage of LED bulbs increased from 7W to 9W
TRACKING UJALA

UJALA DASHBOARD PROVIDES REAL-TIME UPDATES OF THE PROGRAMME

www.ujala.gov.in
SHORTAGE TO SURPLUS

IN 2014, TWO-THIRDS OF MAJOR POWER PLANTS HAD CRITICAL COAL STOCK OF LESS THAN 7 DAYS. TODAY, NO SHORTAGE OF COAL

TRANSPARENT E-AUCTION AND ALLOCATION OF 84 COAL BLOCKS
- Potential revenue of more than ₹ 3.94 lakh cr. to coal-bearing States over the lifetime of the mines

IT-BASED INITIATIVES TO PREVENT COAL THEFT

62% INCREASE IN DRILLING FOR EXPLORATION
- 11.3 lakh metres in 2016-17 from 6.9 lakh metres in 2013-14

REDUCTION IN IMPORT OF COAL
- Foreign exchange worth ₹ 25,900 cr. saved
SURPLUS TO SUPERIOR

MAKING ELECTRICITY CHEAPER:
- Amount of coal required to generate per unit of electricity (specific coal consumption) has reduced by 9% in last 3 years
- Achieved due to improvements in coal quality and supply as well as in power generation
- In 2016-17, 0.63 kgs of coal used to produce 1 kWh of electricity versus 0.69 kgs in 2013-2014

COAL QUALITY IMPROVEMENT
- 3rd Party Sampling of 41.9 cr. tonnes started
- Now 100% crushed coal to power plants

COAL MITRA PORTAL
- Launched to facilitate flexibility in utilization of domestic coal
- Lesser cost of electricity for the consumers

COAL LINKAGE RATIONALIZATION OF ABOUT 4 CR. TONNES
- Potential savings of almost ₹ 3,000 cr.
CLEAN ENERGY
PUTTING THE PLANET FIRST

"FOR ME, RENEWABLE ENERGY IS AN ARTICLE OF FAITH. WE ARE OPTING FOR GREEN ENERGY TODAY FOR A GREENER WORLD TOMORROW"

- Hon'ble PM Shri Narendra Modi

FIRST TIME EVER, NET CAPACITY INCREASE OF RENEWABLE POWER EXCEEDED THAT OF CONVENTIONAL POWER

WORLD'S LARGEST RENEWABLE ENERGY EXPANSION PROGRAMME - 175 GW TILL 2022

Highest capacity addition ever in renewable energy in 2016-17

<table>
<thead>
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<th>Year</th>
<th>Solar + Wind (GW)</th>
<th>Conventional (GW)</th>
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WINDS OF CHANGE

WIND POWER CAPACITY IN THE WORLD

- 4th largest
- Highest ever wind capacity addition of 5.5 GW in 2016-17
- 52% increase in installed wind power capacity - 21 GW in March 2014 to more than 32 GW in March 2017

RECORD WIND TARIFF OF ₹ 3.46 PER UNIT

17% REDUCTION IN WIND POWER COST BY MOVING FROM FIXED TARIFF REGIME TO COMPETITIVE BIDDING FRAMEWORK

NATIONAL WIND-SOLAR HYBRID POLICY DRAFTED FOR
- Promotion of large grid connected wind-solar PV system
- Better grid stability
- Optimal utilization of transmission infrastructure
Solar capacity increased 370% in the last 3 years from around 2.6 GW to more than 12.2 GW

Record low Solar tariff of ₹ 2.44/unit achieved in Bhadla, Rajasthan

GLOBAL LEADER IN SOLAR ENERGY
International Solar Alliance cements India’s status as Jagatguru
Framework Agreement of International Solar Alliance signed by 25 nations
Another 96 prospective member nations

About 9 times higher solar pumps installed between 2014-17 versus 1991-2014
Close to 1.1 lakh solar pumps now as compared to 11,600 till March 2014

10 lakh solar lamps distributed to students to enable them to study in the absence of electricity
Another 70 lakh rural students to be provided with solar lamps

Over 130% increase in concentrated solar thermal (CST) from 23,000 sq. mts. in 2014 to 53,000 sq. mts. of collector areas
**SOLAR ROOFTOPS**
Installed capacity increased 15 times from 41 MW in 2014-15 to 656 MW in 2016-17

World's largest **ground-based solar plant** and world's largest **rooftop solar plant** are both in India

**SOLAR PARKS**
**Solar power tariff reduced** by more than 75% using plug and play model Solar park scheme doubled from 20 GW to 40 GW

Solar power development made attractive with NTPC and Solar Energy Corporation of India (SECI) by taking **offtake risk** and dedicated **green corridors** to transmit renewable energy

**New bidding guidelines** drafted to increase competition and reduce risks

**Mobile apps for consumer convenience**
**Surya Mitra** for Installation, Services and Repairs of solar rooftop installations at customers' door step
**ARUN** (Atal Rooftop Solar User Navigator) to assist in installation of solar rooftop systems
HARNESSING NATURAL RESOURCES FOR NATIONAL DEVELOPMENT

BOOST TO EXPLORATION

NATIONAL MINERAL EXPLORATION POLICY 2016 TO ACCELERATE EXPLORATION

National Aero-Geophysical Mapping Project

- To gather information on deep-seated minerals
- 27 lakh line kms of aero-geophysical data to be acquired by 2019 versus 7 lakh line kms in the last 30 years
• Baseline geo-science data made available by Geological Survey of India (GSI) in public domain free of cost
  ◦ More than 6,000 geological reports available
• Exploration by MECL (Mineral Exploration Corporation Ltd.) has established mineral resources of about 900 cr. tonnes in the last 3 years
• Kick-starting Offshore Mining activity by amending legislative framework for allotment of offshore blocks

**TRANSPARENCY**

• Transparent Auctioning
  ◦ 24 mineral blocks auctioned till May 2017, with estimated resources of over ₹1.1 lakh cr.
  ◦ Estimated revenue of over ₹1 lakh cr. to States over the lease period of mines
  ◦ First ever diamond block auctioned in the country in Madhya Pradesh
• Mobile App TAMRA (Transparency, Auction Monitoring and Resource Augmentation)
  ◦ Allows monitoring of the status of mining blocks auctioned/to be auctioned
  ◦ Faster operationalisation of mining blocks by tracking and expediting statutory clearances
MODERN TECHNOLOGY

PLUGGING LEAKAGES IN MINING

MINING SURVEILLANCE SYSTEM (MSS)
Eye in the sky to check illegal mining through space technology
296 triggers generated, mining activity detected in more than 90% cases, unauthorized mining found in 15% cases
Dashboard and mobile app launched
Remote Sensing Technology using satellite images to check illegal mining

IT-BASED MINING TENEMENT SYSTEM TO AUTOMATE THE ENTIRE MINERAL LIFE-CYCLE FROM EXPLORATION TO ALLOTMENT TO MINING
PEOPLE AND ENVIRONMENT FRIENDLY

PRADHAN MANTRI KHANJIR KSHETRA KALYAN YOJANA (PMKKKY) FOR WELFARE OF MINING AFFECTED AREAS AND PEOPLE

About ₹7,150 cr. collected from mining in 2016-17 under District Mineral Foundations (DMFs) for welfare activities

11 out of 12 mineral-rich states already covered

ENVIRONMENT-FRIENDLY MINING

Star Rating of mines introduced to implement Sustainable Development Framework (SDF)

Abandoned Mines Initiative taken up to assess and restore abandoned mines
“A New India of the dreams of its Yuva Shakti is taking shape. A New India that fulfils aspirations of its Nari Shakti is taking shape. A New India about giving opportunities to the poor is taking shape.”

- HON’BLE PRIME MINISTER SHRI NARENDRA MODI