



UJWAL BHARAT

ACHIEVEMENTS AND INITIATIVES OF

Ministry of Power, Coal and New & Renewable Energy
GOVERNMENT OF INDIA

NOVEMBER 2015

A Period which started the journey towards 'Year Round Power for All'



“माना की अँधेरा घना है,
लेकिन दिया जलाना कहाँ मना है ”

– नरेंद्र मोदी
प्रधानमंत्री, भारत

Record breaking
progress towards fulfilling
Hon'ble Prime Minister
Shri Narendra Modi's vision of...

The logo for '24x7 Power for All' features a stylized orange silhouette of a power plant, a transmission tower, and a city skyline. Below this, the text '24X7' is written in large, bold, red letters, and 'POWER FOR ALL' is written in smaller, bold, blue letters underneath.

24X7
POWER FOR ALL

ACHIEVEMENTS



Power deficit reduced to
2.4%
the lowest ever

Dispatch from Coal India grew at
9.9%
during Apr-Oct 15

Highest ever generation capacity addition
29,168 MW

Over **₹ 3.40 LAKH Cr.**
of potential revenues to coal bearing states through transparent coal e-auctions & allotments

37,821 ckm
Highest ever increase in Transmission lines

₹ 4.63/Unit
Lowest ever solar tariff

First time ever,
exceeded renewable capacity addition
targets in solar, wind, small hydro etc.

More than
3 Cr. LED bulbs
distributed

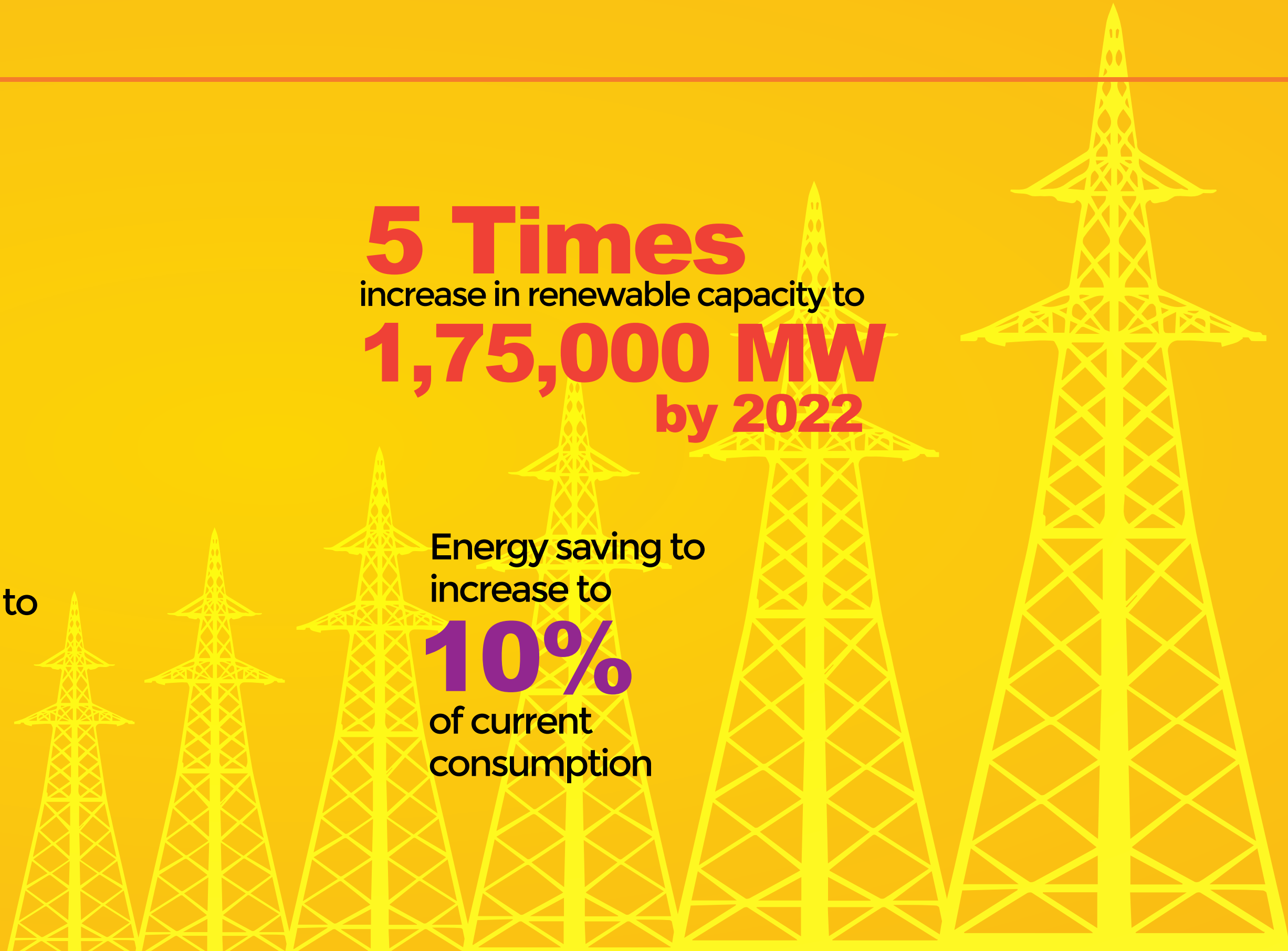
TARGETS

Doubling
Coal India's
production to
100 Cr.
tonnes/year by 2020

Power Generation to
increase by
50%
by 2020

5 Times
increase in renewable capacity to
1,75,000 MW
by 2022

Energy saving to
increase to
10%
of current
consumption



MISSION



24X7

POWER FOR ALL

BY 2019

POWER IS DELIVERED THROUGH A CHAIN OF ACTIVITIES

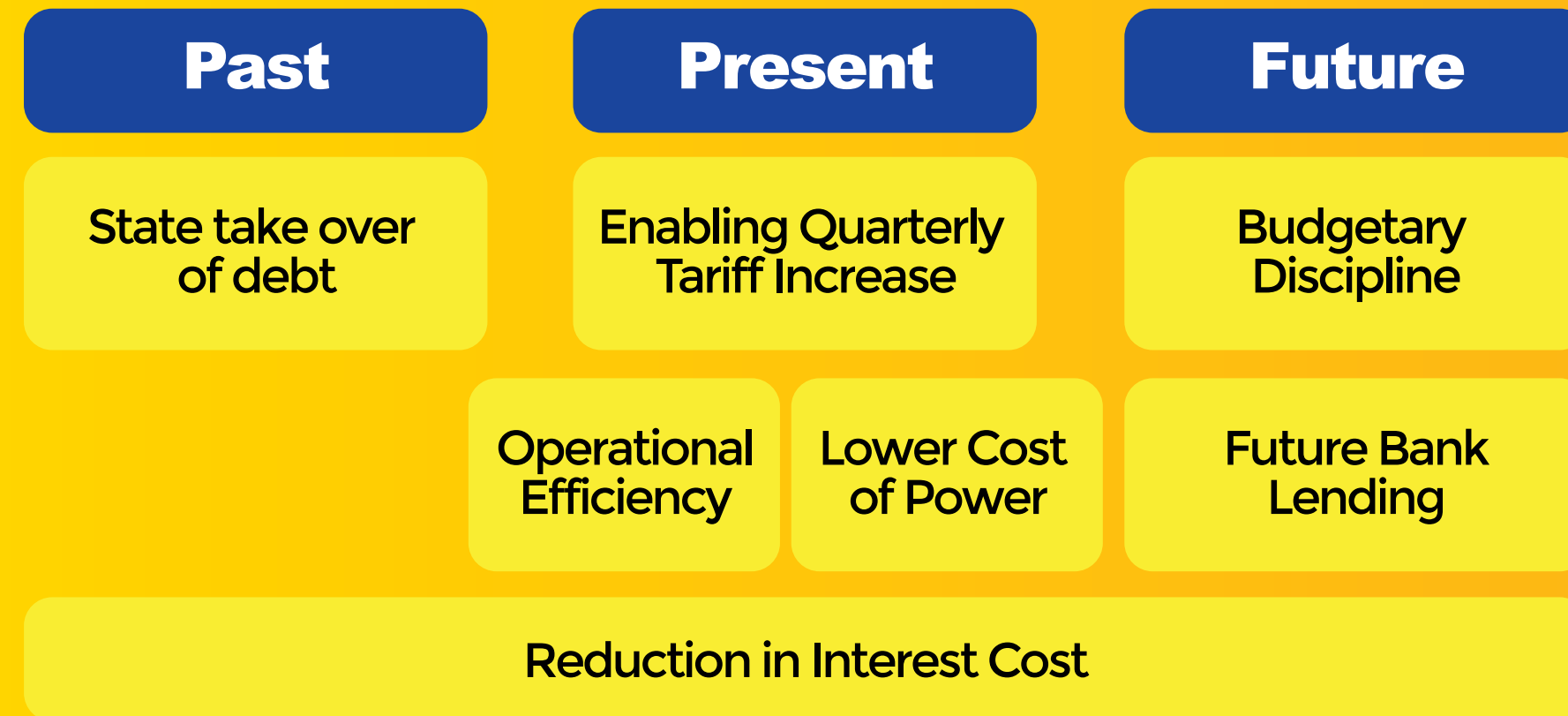
A chain is only as strong as the weakest link



Measures to build an exceptionally strong power delivery chain are on and are bearing results



UDAY (Ujwal DISCOM Assurance Yojana) **of a powerful India** **Permanent resolution of power distribution issues to enable 24x7 Power for all**



Highlights of UDAY

- Improving efficiency through infrastructure improvement, smart metering and tracking of losses
- Reduced losses through public participation programmes
- Demand Side Management to reduce bills and save the environment
- Transmission Capacity Addition for reliable power supply
- DISCOM debt restructuring with alignment of State and DISCOM interests

Benefits

- 24x7 Power for all
- Electrification of all villages
- Enable Energy Security
- Revive investments in Power sector to create jobs
- Almost all DISCOMs to be profitable in 2-3 years
- More than Rs. 1.8 lakh crore of annual savings due to efficiency improvement





ENERGY EFFICIENCY REVOLUTION IS HERE

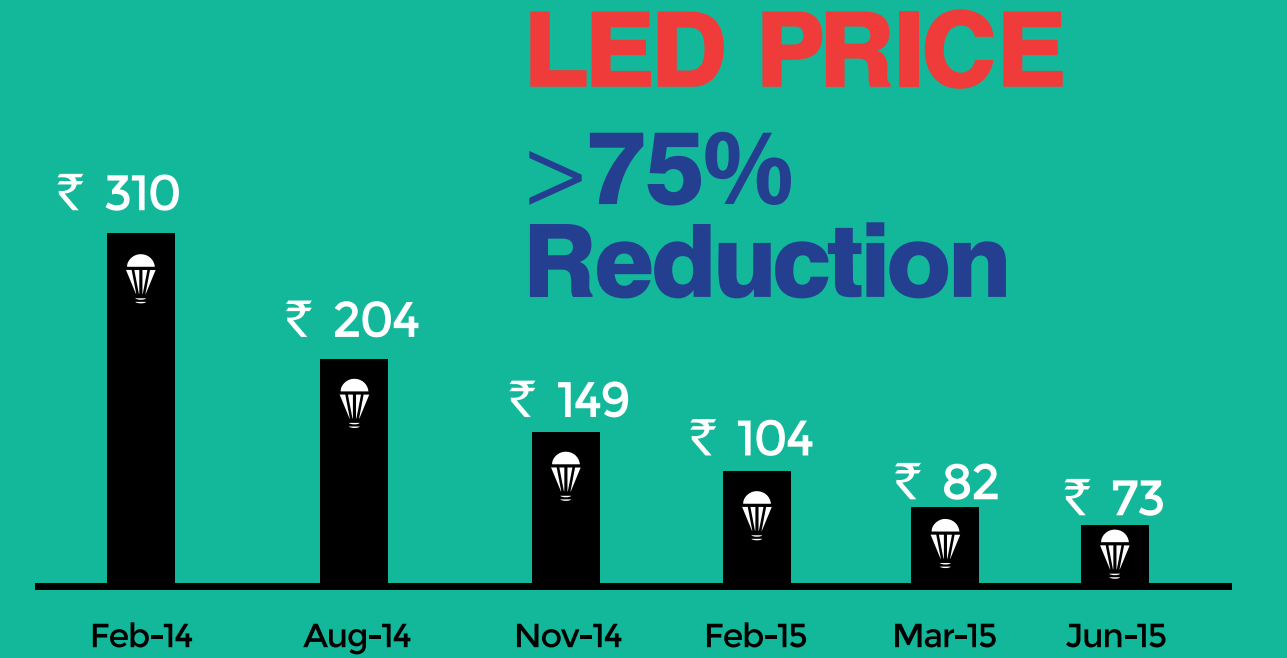
NATIONWIDE CAMPAIGN FOR ENERGY CONSERVATION LAUNCHED

ENERGY EFFICIENCY: ONE UNIT OF POWER SAVED IS WORTH 1.33 UNITS PRODUCED

TARGET TO SAVE 10% OF CURRENT ENERGY CONSUMPTION ALL INCANDESCENT BULBS TO BE CHANGED TO LED IN THREE YEARS

DOMESTIC EFFICIENT LIGHTING PROGRAMME

(DELP) to distribute 77 crore LED bulbs in three years



Due to transparent procurement, price of LED has reduced by 74% from ₹ 310 in Feb 2014 to ₹ 73 in Jun 2015 while increasing specifications from 7W to 9W

Over 3 crore household bulbs and 4.5 lakh streetlights replaced with LED bulbs

CONSUMPTION



ELECTRICITY FOR EVERY VILLAGE

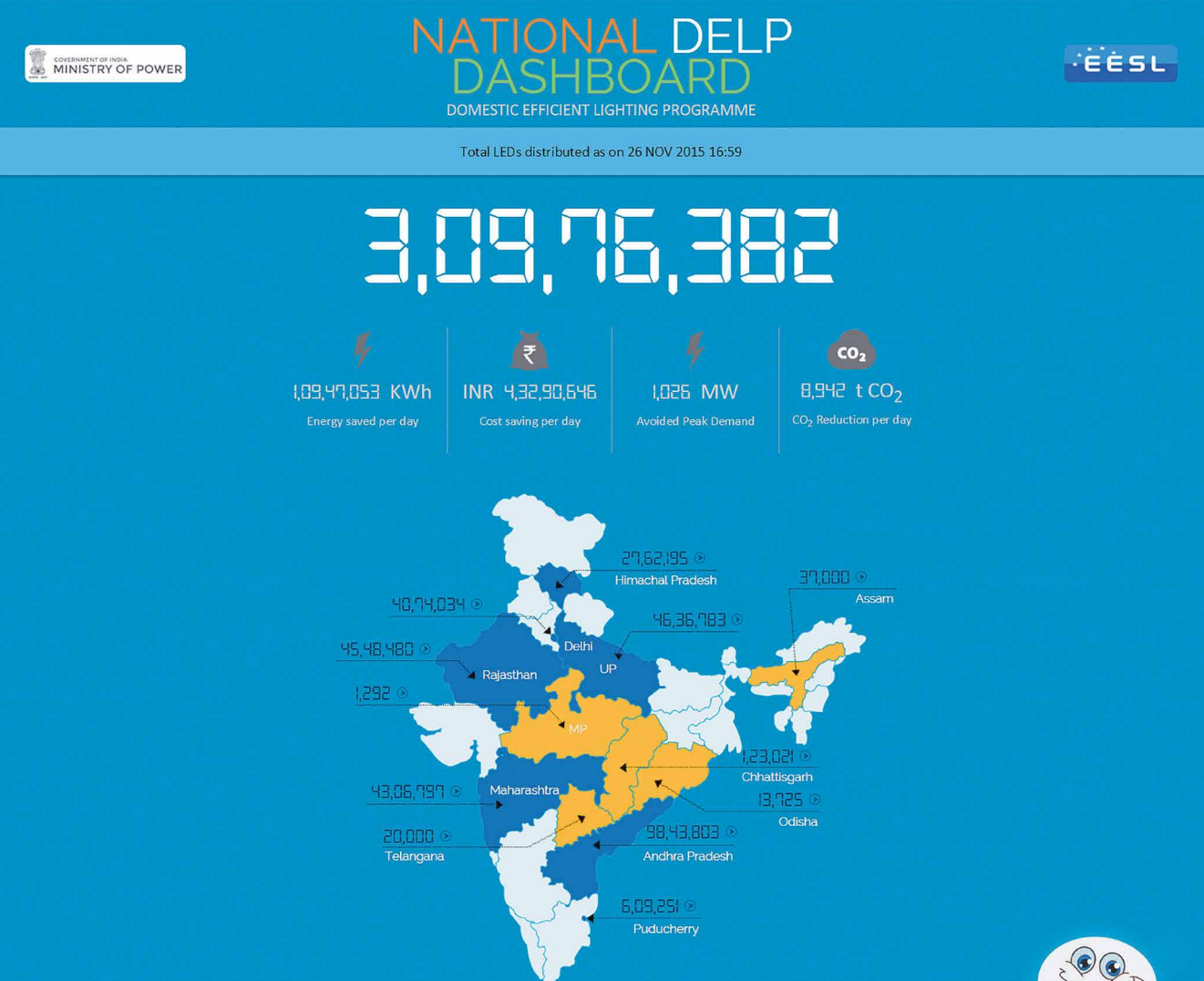
"It is now the solemn pledge of the "Team India" of 1.25 billion countrymen that the target of providing electric polls, electric wires and electricity to these 18,500 villages would be achieved within next 1000 days"

- Hon'ble PM Shri Narendra Modi on 15th August, 2015

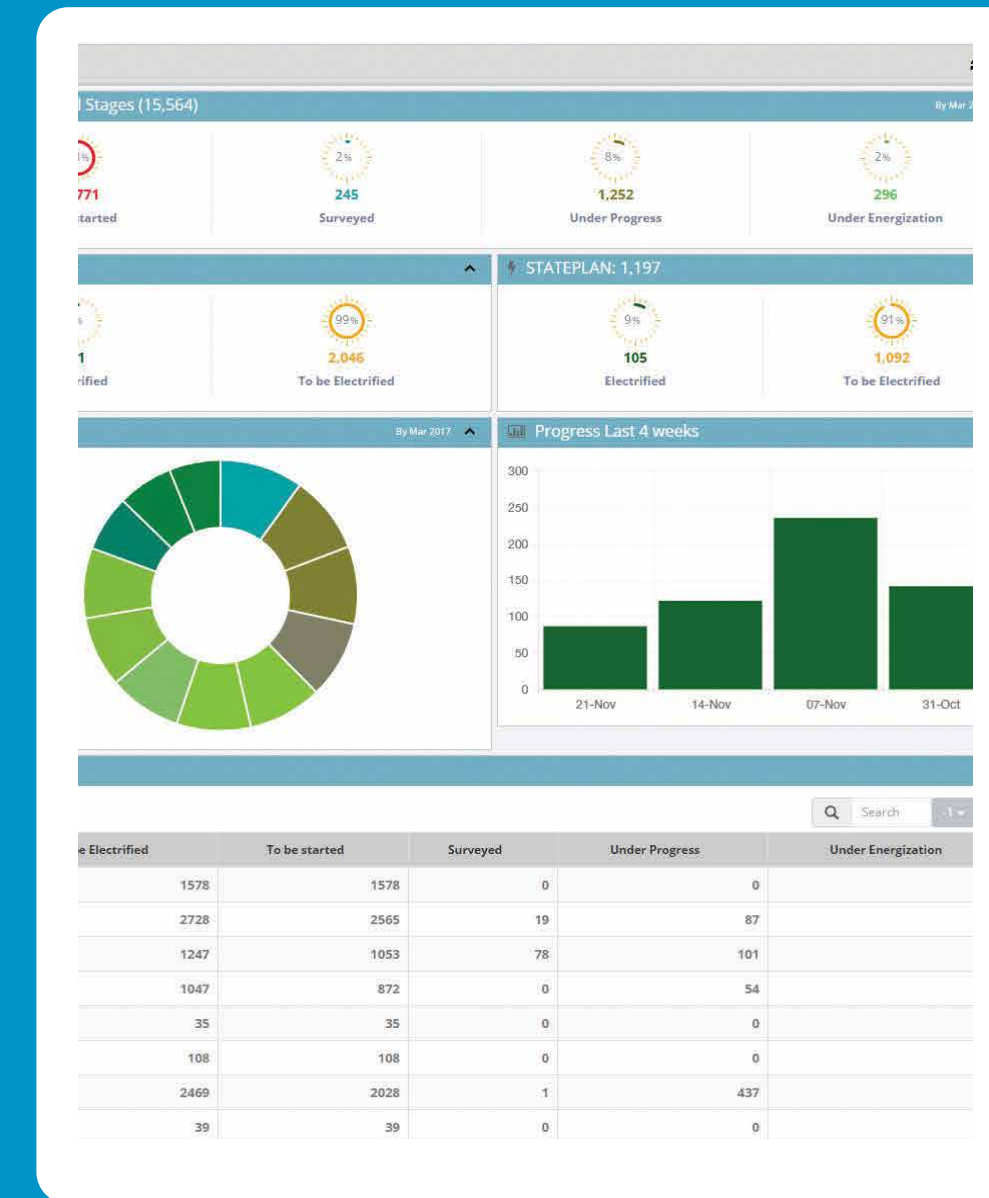
Citizen engagement through Accountability, Communication and Transparency

Realtime tracking of LED bulb distribution

Track and find how to get LED bulbs from <http://www.delp.in>

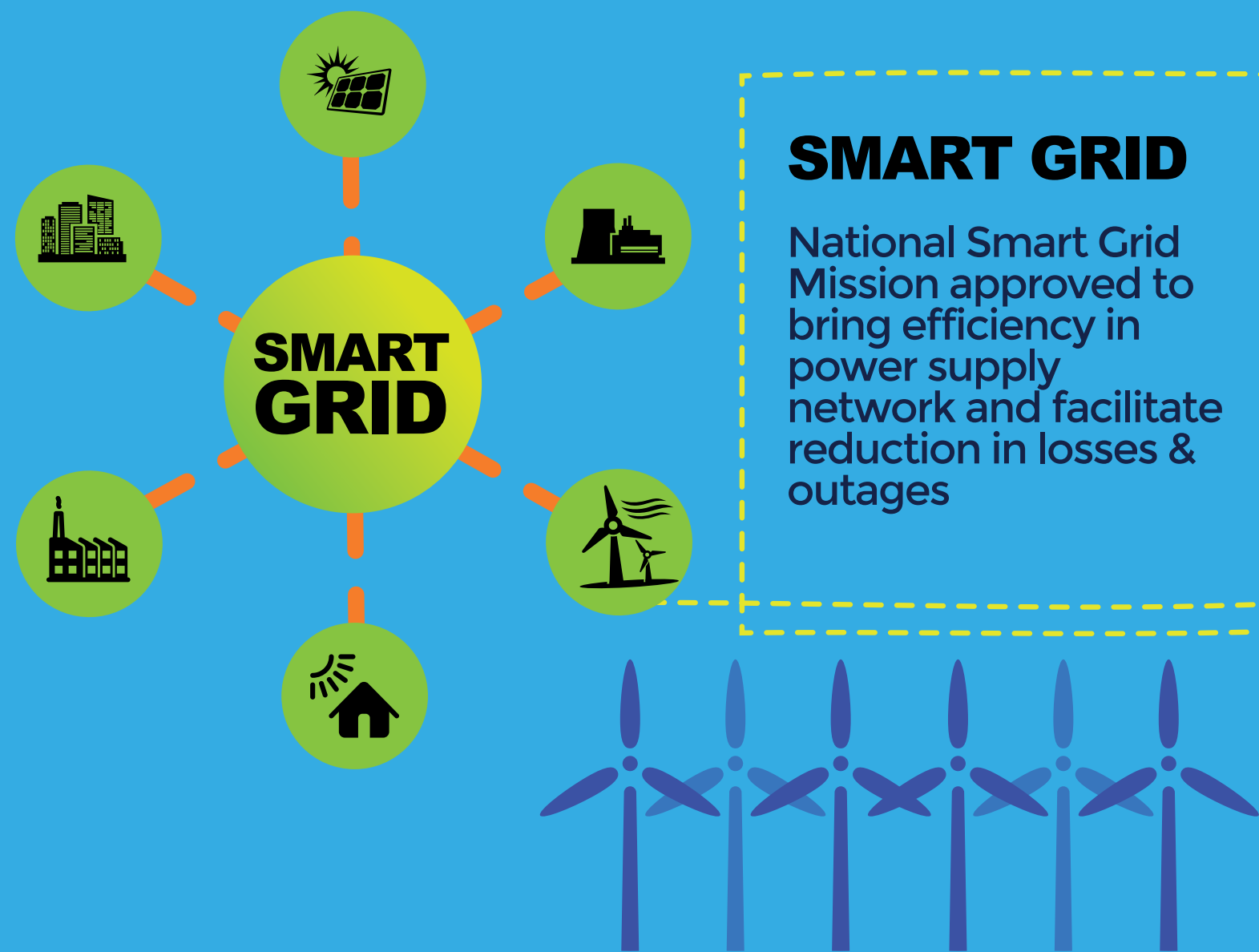


Track Rural Electrification on Grameen Vidyutikaran app



TRANSMITTING & DISTRIBUTING POWER

POWERLESS TO POWERFUL



Level playing field in transmission through separation of **POSOCO and POWERGRID**

₹ **38,000 Cr.**
GREEN ENERGY CORRIDOR
project being rolled out to ensure evacuation from renewable energy plants

Projects worth

₹ **1 LAKH Cr.**
to be bid in the current fiscal year

Total investment of ₹ 1.4 lakh Cr.

Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

Total outlay
₹ 75,893 Cr.

Feeder segregation for 24x7 power
to rural homes, micro small and cottage industries

Now small hamlets also covered

Adequate power to farmers

New transformers and upgradation
of last mile infrastructure

Remote Villages
to be covered: Off-grids and micro-grids

Solar Installations
by Discoms to promote clean and green energy

Integrated Power Development Scheme (IPDS)

An integrated scheme for urban areas covering:

Total outlay
₹ 65,424 Cr.

Smart-metering for large consumers and **tamper-proof meters** at homes

Comprehensive sub-transmission & distribution
infrastructure upgradation in urban areas

Underground cabling and high tech GIS transformers in densely populated areas

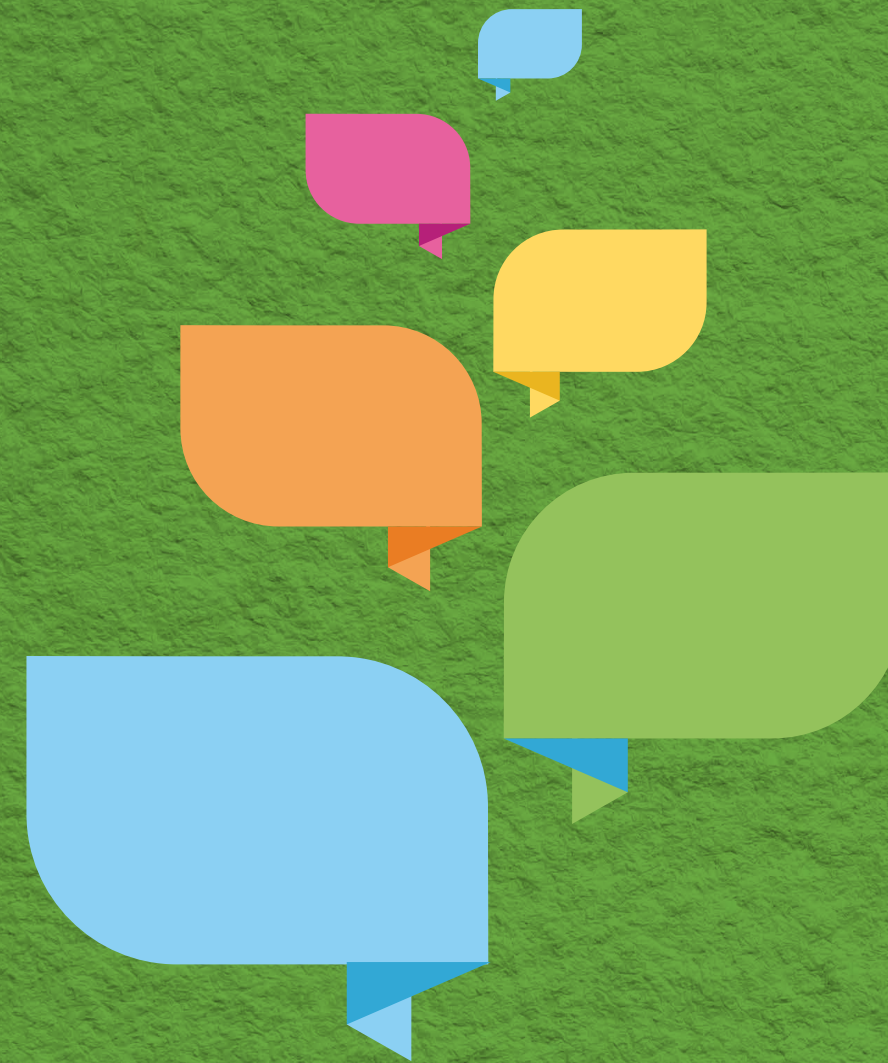
IT implementation for better customer service

Solar installations like rooftop solar also covered



RENEWABLE ENERGY

AN ARTICLE OF FAITH FOR INDIA



Record targets towards India's Intended Nationally Determined Contributions (INDC) including

- Reducing emission of GDP by 33 to 35% by 2030 from the 2005 level.
- Achieving about 40% cumulative electric power installed capacity from non fossil fuel based Energy Sources by 2030.
- Creating additional carbon sink of 2.5 to 3 billion tonnes.

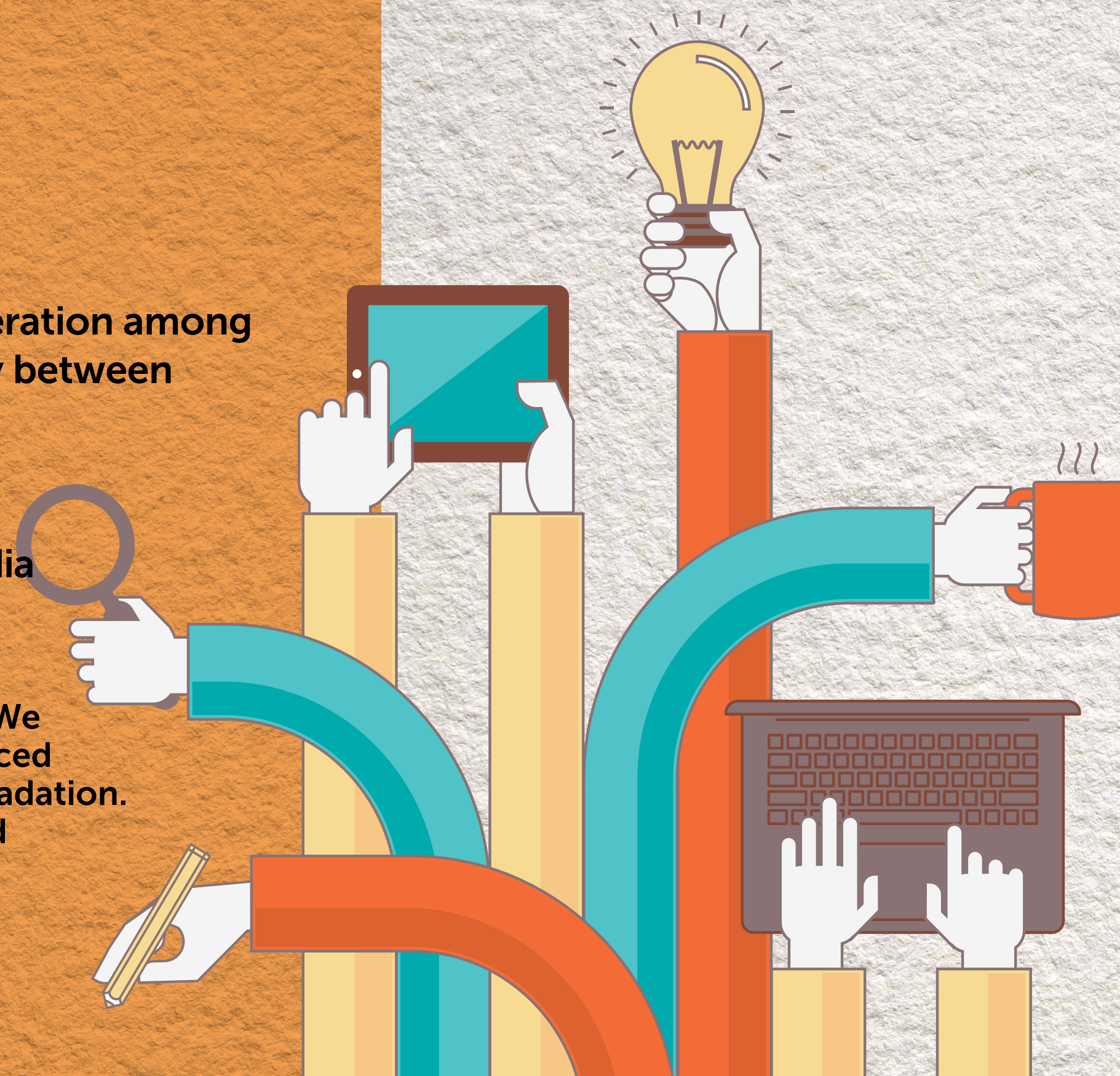
INTERNATIONAL SOLAR ALLIANCE

- Envisioned as a specialized platform for mutual cooperation among 121 solar resource rich countries lying fully or partially between Tropic of Cancer & Tropic of Capricorn
- Dedicated to address special energy needs of ISA member countries
- Secretariat planned to be hosted by Government of India

SOME QUOTES:

“There are several countries blessed with high solar radiation. We are making efforts to bring these countries together for enhanced solar energy utilization through research and technology upgradation. These countries have immense strength and capabilities to find solutions for their energy needs through solar energy”.

Narendra Modi
Hon'ble Prime Minister of India



“I welcome this initiative because if (these) countries can formulate ambitious targets for renewables by modifying regulatory frameworks for financing and improving technologies for lowering price of solar energy, then it will be a major contribution to the implementation of climate agreement”.

Francois Hollande
President of France

“ISA can provide a unique focus in supporting global efforts to increase the uptake of renewable energy through the development of solar policies, the promotion of applications to reduce poverty and the facilitation of energy access. I welcome this initiative by an IRENA Member Country and the Chair of the IRENA Council. India, and look forward to supporting ISA member countries in all possible ways”.

Adnan Z. Amin,
Director General, IRENA

100,000 MW of Solar and 60,000 MW of Wind capacity



Increasing the overall renewable capacity target by **MORE THAN 5 TIMES** from **32,000 MW** to **1,75,000 MW** by 2022

Opportunity for unemployed graduates & farmers to become solar entrepreneurs

Green Generation for Clean & Energy Secure India

India is running the largest renewable capacity expansion program in the world

Renewable Purchase Obligation (RPO) and Renewable Generation Obligation (RGO) to boost renewable energy

GENERATION

118 exhibitors from **7** countries

200 global investors & financiers

World's largest renewable energy financing meet.

Commitments of **2,73,000 MW**

62,000 MW of renewable manufacturing commitment

70,000 MW of renewable financing commitment

Nearly **2500 delegates** from 32 countries

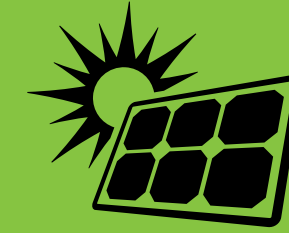
202 speakers including International speakers from 29 countries

Financing Green Energy RE-Invest 2015

RAPID GREEN PROGRESS

“ We are like tenant farmers chopping down the fence around our house for fuel when we should be using Nature's inexhaustible sources of energy – sun, wind and tide. ”

- Thomas Edison



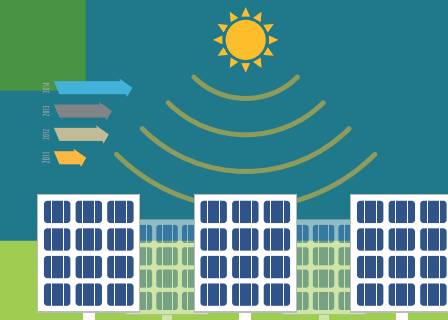
Highest ever increase in solar capacity of **1,112 MW**

42%

increase in solar capacity during 2014-15



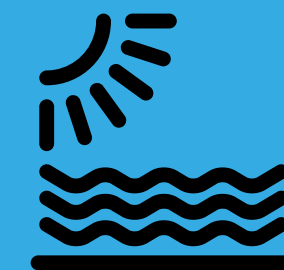
Reaching grid parity with record low tariff of **₹ 4.63/unit**



25 solar parks with capacity of **~1000 MW** each planned



Accelerated depreciation restored for wind power from July 2014 to help increase wind capacity



Coal cess quadrupled from **₹ 50 to ₹ 200/tonnes** to help finance clean energy projects and Ganga rejuvenation

Tender by NTPC to setup **2,170 MW** of Solar Projects

RAPID INCREASE IN GENERATION CAPACITY

5 NEW
Ultra Mega Power Projects of
20,000 MW
to be setup in
plug-and-play mode
attracting an investment of
> ₹ 1 LAKH Cr.



Agreement signed for
expansion of Patratu
Thermal Power Station,
Jharkhand to
4,000 MW

All clearances and linkages
will be in place before the
project is awarded by a
transparent auction system

Old plants to be upgraded to
enhance capacity and reduce
emission

GENERATION

CLEANING COAL REMOVING THE TAINT

CLEANING COAL REMOVING THE TAINT



Cancellation of 204 coal blocks by Supreme Court presented a potential grave crisis of:

ENERGY
Shutdown of plants dependant on cancelled coal mines

EMPLOYMENT
Livelihood of thousands of workers endangered

ECONOMY
Economic activity halts, NPAs mount

Crisis averted by focused action through implementation of transparent e-auction process in just four months

REGIONAL DEVELOPMENT

Coal bearing states like Jharkhand, Chhattisgarh, Odisha, West Bengal, Madhya Pradesh, Maharashtra and Telangana to get potential revenue (including auction proceeds and royalties) of

₹ 3.4 lakh Cr.

From auction of 32 Coal blocks & allotments of 41 coal blocks to states/PSUs over the lifetime of the mines

REJUVENATED ECONOMY

Prevented NPAs, reduced import bill, generated momentum for 'Make in India' and raised resources for renewables & Ganga cleaning through coal cess.

Legislation Enabled

Coal Mines (Special Provision) Act & Mines and Minerals (Development and Regulation) Amendment Act enacted to enable growth of coal sector and provide for the welfare of locals particularly tribals in the mineral bearing areas



Lower Power Tariff

through liberal coal swaps from inefficient plants to efficient plants and from plants situated away from mines to pit-head plants to minimize cost of coal transportation

Reduction in coal theft using

RFID/GPS tagging

Coal price rationalization

based on Gross Calorific Value (GCV) to optimize tariffs

Coal Project Monitoring Portal

for quicker decision making, faster dispute resolution and accelerated removal of bottlenecks

Improved coal quality

using compulsory crushing, washing and third party sampling

DOUBLING COAL INDIA PRODUCTION IN 5 YEARS

Double coal
production to
100
Cr. Tonnes
by 2020

Trebling exploration activities
for enhancing coal production

Over 60 new mines to be opened

Better evacuation of
coal planned by investing
massively in new railway rakes,
expediting railway lines,
modern equipment and
mechanization

Partnership between Railways,
coal-bearing states and Coal India
to strengthen infrastructure creation.
Signed MoUs with Odisha
and Jharkhand



एक कदम स्वच्छता की ओर

Swachh Bharat

The PSUs under the three Ministries were actively involved in this effort and constructed

1,28,000 toilets

separately for boys and girls by 15th August, 2015 particularly in the needy states such as Bihar, Odisha, West Bengal, Jharkhand, Chhattisgarh, Andhra Pradesh and Rajasthan. After construction, the PSUs are also maintaining these toilets for a period of five years thus ensuring a complete sanitation programme.

Awareness is being created in local communities to improve over all sanitation.



सत्यमेव जयते

Ministry of Power, Coal and New & Renewable Energy
GOVERNMENT OF INDIA

“ India has now graduated from
megawatts to gigawatts in terms
of renewable energy production. ”

Prime Minister Narendra Modi
at RE-Invest 2015

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