# Notes & News

#### Proposed Electricity (Amendment) Bill 2020

The Minister of State (i/c) for Power & MNRE Mr. R.K. Singh, recently underlined at a video press confernce importance of proposed reforms in the power sector, dispelling doubts and misinformation. He stated that the reforms are steps in the direction of making the sector consumer centric as we are all here to serve them. The Minister said that the Government is not taking away any powers of states in appointment of members and chairpersons of State Electricity Regulatory Commissions (SERCs), and the proposed reforms are aimed at promoting more transparency only.

While giving clarity on electricity tariff fixation, the Union Power Minister stated that the powers of tariff fixation remain with SERCs. He emphasised that proposed power reforms are aimed at introducing transparency and accountability to protect the interest of consumers and ensuring healthy growth of the power sector. He also mentioned that there is no restrictions on states for providing subsidy as states can give as much subsidy as they want but they must pay it upfront through direct benefit transfer (DBT) so that Discoms remain healthy and are able to maintain and improve distribution infrastructure like transformers and distribution lines, pay for power purchased and are able to provide quality electricity to the people.

It may be stated that electricity is one of the most critical components of infrastructure which is essential for sustained growth of the economy of the country. While we have made significant improvements in the electricity generation and transmission segments, the distribution segment, having achieved 100% village electrification and near-universal access to electricity, is beset with problems of operational inefficiencies, liquidity, and financial solvency. In this regard the Ministry of Power had prepared a draft proposal for Amendments in Electricity Act 2003 in the form of draft Electricity (Amendment) Bill 2020 with the following broad objectives:

- Ensure consumer centricity
- Promote ease of doing business
- Enhance sustainability of the power sector
- Promote green power

However, some canards and misconceptions are being spread regarding some of the proposed amendments to the Electricity Act. It is important to place the correct position pertaining to them.

Misconception 1: Transfer the power of appointment to SERCs from state to central government

There is no proposal to take away the power of appointment of members/chairpersons of State Electricity Regulatory Commissions from the state governments. As per the draft circulated the appointments of members/ chairpersons of the State Electricity Regulatory Commissions will continue to be made by the state governments. The Selection Committee currently has equal number of members from the central and state governments - one member from central government and one from state government. The proposed Selection Committee in the draft bill also has equal number of members from the central and state governments as earlier. The only difference is that instead of the Selection Committee being presided over by a retired Judge of the High Court, it is proposed that the committee be headed by a sitting Judge of the Supreme Court. Instead of multiplicity of Selection Committees, there would be one Selection Committee for drawing up of panels for the vacancies in the Central Electricity Regulatory Commission and State Electricity Regulatory Commissions. The appointments will continue to be made by central government for the Central Electricity Regulatory Commission and by the state governments for the State Electricity Regulatory Commissions as before. The reason for this proposed amendment was that currently every state had to constitute a separate selection committee for each fresh vacancy and this took time. In some cases the time taken for appointment was up to 2 years leading to disruption of work of the Regulatory Commission. Regulatory Commissions are the fulcrum around which the power sector revolves. Delays were deleterious for the various stakeholders such as consumers, Discoms, and generators etc. However, based on the suggestions received, the central government is now considering to continue with the existing separate Selection Committees for each state but make them Standing Selection Committees so that there is no need for constituting them afresh every time a vacancy occurs. The Selection Committee will continue to have equal number of members from the state and central governments, as earlier with the only difference that it will now propose to be presided by the Chief Justice of the High Court of the state.

Misconception 2: DBT is against the interests of consumers

Another misconception is that the proposed provisions for introducing the system of direct benefit transfer (DBT) of subsidies is inimical to the interest of the consumers especially the farmers. It has been argued that if the state government is not able to pay the subsidies on time, the electricity supply to the consumers may get disconnected. This is baseless. As per Section 65, of the Electricity Act, 2003, the state government is required to pay the amount of subsidy in advance to the distribution companies. The subsidy is now being proposed to be given into the account of the consumers maintained by the distribution companies through DBT. It is being provided in the new Tariff Policy that the electricity supply shall not be discontinued even if the state government is unable to pay the subsidy in time or even if the state government fails to pay the subsidy for 3 to 4 months. Therefore, the consumer's interest will be duly protected. It is, of course, expected that the state government pay the subsidy in advance to the DISCOM/consumers as provided for in the law. It may be noted that the Direct Benefit Transfer will be beneficial for both the state governments and as well as distribution companies. It will be beneficial for the state governments because it will ensure that the subsidy reaches the people who are actually entitled and the state governments get clear accounts of the amount given as subsidy. It will benefit the distribution company by making sure that the subsidies due are received as per the number of beneficiaries. It may be noted that Government of India have implemented Direct Benefit Transfer for 419 Schemes pertaining to 56 Ministries with cumulative savings of Rs. 1.70 lakh crores.

Misconception 3: Power to set retail power tariff is being transferred from state to central government.

Another misconception is that currently the state governments fix tariff for retail supply of electricity to consumers and this is proposed to be taken over by the central government. This is again absolutely baseless. Presently, the tariff is determined by the State Electricity Regulatory Commission and no change has been proposed in the present arrangement.

The other major amendments proposed in the Electricity Act are as follows.

Sustainability

(i) Cost reflective tariff: To eliminate the tendency of some Commissions to provide for regulatory assets, it is being provided that the Commissions shall determine tariffs that are reflective of cost so as to enable Discoms to recover their costs. It is estimated that the total regulatory asset, i.e. revenue due to a Discom but not collected because appropriate tariff increase was not given, in the country is about Rs.1.4 lakh crores.

 (ii) Establishment of adequate payment security mechanism for scheduling of electricity - It is proposed to empower load dispatch centres to oversee the establishment of adequate payment security mechanism before dispatch of electricity, as per contracts.

Late payment of dues of generating and transmission companies have reached unsustainable levels. As of 31.03.2019, the payables to the Gencos and Transcos were Rs.2.26 lakh crores. This not only impairs the finances of the Gencos and Transcos making it difficult for them to pay for fuel and other expenses but also has a debilitating impact on the banks. If liquidity is not maintained, the power sector can collapse. Thus, it is in our collective interest to put in place systems for ensuring timely payments. That is why it is being provided that electricity shall not be scheduled or despatched unless security of payment has been established.

Ease of doing business

- (iii) Cross subsidy: At present, the Act provides for the State Commissions to progressively reduce cross subsidies. Despite the requirement of the tariff policy to reduce cross-subsidies to within 20% of average cost of supply, they are in excess of 50% in some states making industries uncompetitive. The Bill provides for the SERCs to reduce cross subsidies as per the provisions of the tariff policy. The tariff policy is prepared after consultation with the all stakeholders and the views of the state governments are taken into consideration before finalising its provisions. It is noteworthy that there is no proposal to eliminate cross subsidy.
- (iv) Establishment of electricity contract enforcement authority: CERC and SERCs do not have powers to execute their orders as decree of a civil court. An authority headed by a retired Judge of the High Court is proposed to be set with such powers including but not limited to powers of attachment and sale of property, arrest and detention in prison and appointment of a receiver to enforce performance of contracts related to purchase or sale or transmission of power between a generating company, distribution licensee or transmission licensee. This will enhance sanctity of contracts and spur much needed investment in the power sector.

Renewable and hydro energy

(v) National Renewable Energy Policy: For environmental reasons, it is in our long term interest to promote green

power. India is a signatory to the Paris Climate Agreement. It is therefore proposed to have a separate policy for the development and promotion of generation of electricity from renewable sources of energy.

- (vi) It is also proposed that a minimum percentage of purchase of electricity from hydro sources of energy is to be specified by the Commissions.
- (vii) Penalties: It is being further proposed to levy penalties for non-fulfilment of obligation to buy electricity from renewable and/or hydro sources of energy.

Miscellaneous

- (viii) Strengthening of the appellate tribunal (APTEL): It is proposed to increase the strength of APTEL its strength of members, apart from the chairperson, to at least seven to facilitate quick disposal of cases. It may be noted that there are a large number of cases pending in APTEL at present. To be able to effectively enforce its orders, it is also proposed to give it the powers of High Court under the provisions of the Contempt of Courts Act.
- (ix) Penalties: In order to ensure compliance of the provisions of the Electricity Act and orders of the Commission, section 142 and section 146 of the Electricity Act are proposed to be amended to provide for higher penalties.
- (x) Cross border trade in electricity: Provisions have been added to facilitate and develop trade in electricity with other countries.
- (xi) Distribution sub-licensees: To improve quality of supply, an option is proposed to be provided to Discoms to authorise another person as a sub-license to supply electricity in any particular part of its area, with the permission of the State Electricity Regulatory Commission.

It may be noted that provisions relating to distribution franchisee already exist in the Act and are being successfully used by distribution companies to improve performance and enhance efficiencies. These are enabling provisions for use by DISCOMs/states which want to give out some areas to franchisees/sub-licensees. It has been ensured that distribution sub licensee remains under regulatory control and jurisdiction to protect interest of consumers.

## Power Minister dedicates 3 wind projects with 800 MW capacity to the nation

Mr. R.K. Singh, Union Minister of State (Independent Charge) for Power and New & Renewable Energy (MNRE), in a virtual ceremony, dedicated Sembcorp's state of the art SECI 1, 2 and 3 projects to the nation. Mr. Bhanu Pratap Yadav, Joint Secretary, MNRE, along with several other dignitaries joined Mr. Wong Kim Yin, Group President and CEO, Sembcorp Industries from Singapore and Mr.Vipul Tuli, Managing Director, Sembcorp Energy India Limited virtually present to commemorate this milestone.

Sembcorp Energy India Limited (SEIL), a wholly-owned subsidiary of Sembcorp Industries, announced completion of its latest 800MW wind power projects, bringing its India renewable energy capacity to 1730MW. With the full commissioning of its 300MW SECI 3 wind project, Sembcorp becomes the first independent power producer to fully commission its projects awarded in the first three wind auctions held by the Solar Energy Corporation of India (SECI). Together, these assets provide enough clean energy to power more than 600,000 homes and avoid over 2 million tonnes/annum of carbon dioxide emissions. This capacity is also the largest operational wind capacity with any developer to-date from SECI auctions.

The Minister congratulated SEIL and Singapore Government for their work and commitment in their work in the field of renewable energy sector. He said that we are determined to achieve energy transition for which we will ensure transparency, fairness and level playing field to our partners in the sector. He further added that we are committed for achieving target of 175 GW renewable energy capacity by 2020 and the government's vision of 450 GW renewable energy capacity by 2030.

Mr. Wong Kim Yin, Group President and CEO, Sembcorp Industries, said from Singapore: "India is a key market for Sembcorp's Energy business. We thank the Indian government for their trust in and partnership with us to continue to provide sustainable energy solutions to support urbanisation, electrification and decarbonisation in India."

Since entering the India market in 2011, SEIL has established itself as a reliable independent power producer in the country. With a presence across nine states, SEIL owns and operates 35 assets, adding up to a total power capacity of 4,370MW including 1,730MW of renewable energy.

Vipul Tuli, Managing Director, Sembcorp Energy India Limited said: "This is a collective achievement of India's power sector. The successful completion of the SECI 1, 2 and 3 projects were made possible with the support and guidance of MNRE and Ministry of Power, as well as close partnerships with many central, state and local authorities. Delivery of this 800MW capacity is a testament to collaboration between industry and government."

# PFC-IIT, Kanpur agreement for training, research, and entrepreneurship development in smart grid technology

Power Finance Corporation (PFC), country's leading NBFC, signed a MoA with Indian Institute of Technology- Kanpur (IIT-K) for training, research, and entrepreneurship development in smart grid technology. Under the MoA, PFC will provide financial assistance of Rs. 2,38,97,000.00 (Rupees two crores thirty eight lakhs and ninety seven thousand only) to IIT-K under its CSR initiative.

Mr. R. Murahari, Executive Director (CSR&SD), PFC informed that the objective of the pact is to provide support to IIT-K in developing infrastructure for research and development on smart grid technology. As part of project, IIT-K will also provide training on smart grid technology to 90 participants and provide fellowship to 9 selected candidates for development of ideas on smart grid technology. The fellows will be assisted by Start-up Innovation and Incubation Centre (SIIC) of IIT-K and encouraged to take up entrepreneurial activities.

Mr. M Prabhakar Das, Chief General Manager (CSR&SD), PFC and Prof. Jayant Kumar Singh, Dean Resource and Alumni, IIT-K signed the agreement on behalf of respective organizations on a virtual platform.

#### NTPC-NIIF to explore business opportunities in India

NTPC Ltd, has signed a Memorandum of Understanding (MoU) with National Investment and Infrastructure Fund (NIIF), acting through National Investment and Infrastructure Fund Limited (NIIFL), to explore opportunities for investments in areas like renewable energy, power distribution among other areas of mutual interest in India.

The MoU was signed in the august presence of Mr. Gurdeep Singh, CMD, NTPC and Mr. Sujoy Bose, Managing Director and CEO, NIIFL. Mr. A K Gupta, Director (Commercial) NTPC, Ms. Ambalika Banerji, Executive Director, Direct Investments, NIIF, Mr. A K Gautam, Director (Finance) NTPC, Mr. Vinod Giri, Managing Partner, NIIF Master Fund and other senior dignitaries from both the organisations were also present on the occasion. The MoU was signed through video conferencing between Ms. Sangeeta Kaushik, GM (BD-Domestic), NTPC and Mr. Rajiv Dhar, Executive Director and Chief Operating Officer, NIIFL.

With this MoU, NTPC and NIIF aim to collaborate to further help India's vision of building sustainable and robust energy infrastructure in the country. This partnership aims at bringing together NTPC's technical expertise and NIIF's ability to raise capital and bring in global best practices by leveraging its existing relationships with leading players.

#### NTPC exhibits exceptional operational efficiency

NTPC Ltd, Singrauli Unit 1, has emerged as the topperforming unit in the country in the first quarter of the financial year, as per the data released by Central Electricity Authority (CEA). NTPC Singrauli is the oldest unit and a flagship power station of NTPC Ltd.

The first unit of the station started generating on February 13, 1982, and continues to serve the country with exceptional performance. According to NTPC Ltd, NTPC Singrauli has an installed capacity of 2000 MW with five units of 200 MW each and two units of 500 MW each. Three units (1, 4 and 5) of 200 MW have achieved PLF of 101.96%, 101.85% and

100.35% respectively in Q1 FY 20-21 among the coal-fired units, in the country.

### Deendayal Gram Jyoti Yojana and IPDS to be merged in Single Scheme

According to the Union Power Minister a new scheme would soon be announced after merging Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS). Centre's funding to states is being made conditional in the new scheme. The states or UTs whose DISCOMs are not in loss will have no problem in getting the funds but the states/UTs whose DISCOMs are in loss will have to give a proper plan as to how they are going to eliminate the losses to get funds. He added that state/UT governments will get some flexibility in the new scheme to enable them to plan according to their specific needs. Mr. R.K. Singh underlined that states governments and UTs have been given around Rs.1.5 crores every 3-4 years to improve the infrastructure in power sector but the same situation keep repeating itself due to lack of non-adherence to loss reductions trajectory. That is why the adhering to new scheme is proposed to link the funding to the reforms.

The country achieved a capacity of 3.7 lakh MW in power generation against a demand of 1 lakh 85 thousand MW.

The Power Ministry is planning to launch a new variant on KUSUM scheme in which the feeder to the agriculture sector will be solarized. It will eliminate the burden of subsidy of state governments which they give in irrigation in next 3-4 years.

## MNRE grants five-month extension for renewable energy projects hit by COVID-19

The Ministry of New and Renewable Energy (MNRE) has granted extension in the scheduled commissioning date for renewable energy projects by five months from 25 March to 24 August 2020 to overcome the COVID-19 disruption. In April, MNRE had granted a 30-day extension beyond the lockdown period for RE projects and said that this would be a blanket extension where there would be no requirement of case-to-case examination.

The Ministry has now decided that all renewable energy implementing agencies will treat lockdown due to COVID-19 as force majeure and all RE projects under implementation as on the date of lockdown, 25 March 2020, through RE implementing agencies designated by MNRE or under various schemes of MNRE, will be given the five month time extension.

"This blanket extension, if invoked by the RE developers, will be given without case to case examination and no documents/evidence will be asked for such extension," MNRE said in a notification. The notification also said project developers may also pass on the benefit of such timeextension to other stakeholders down the value chain like engineering procurement construction (EPC) contractors, material, equipment suppliers and original equipment manufacturers (OEMs).

National Solar Federation of India (NSEFI), had asked the Ministry to extend the period by six months. "Renewable energy minister has agreed to give a five-month extension inline with the extension given for transmission projects," NSEFI CEO Mr. Subrahmanyam Pulipaka said.

After the earlier announcement of a 30-day blanket extension, renewable energy executives had said that the extension should have been up to 90-180 days, as it was difficult for them to meet the labour mobilisation and logistical challenges.

In July, the ministry had defined the period from 25 March to 31 May as the official dates for the lockdown. The ministry said on April 17 that it would regard the lockdown as a force majeure.

MNRE had in March issued directions to SECI, NTPC and senior officials of the energy departments of states and UTs, to treat delay on account of disruption of supply chains due to spread of Coronavirus in China or any other country, as force majeure.

### Government to provide land near ports for manufacturing solar equipment

The Government of India is planning to offer land near its ports to companies for building solar equipment factories, as it seeks to attain self-reliance in green energy market. With 110,000 hectares of land available across a dozen major ports, Government hopes that accessibility to a port will not only make it more cost-competitive to make solar equipment, but also facilitate exports. This also is in line with India's port-led development strategy to leverage its 7,600km-long coast line.

It is reported that the Ministry of New and Renewable Energy (MNRE), and shipping and ports, are in talks for offering this land for solar equipment manufacturing. The plan is the follow up of the Government's decision to impose tariff and non-tariff barriers to put a check on imported solar cells, modules and inverters that will make their sourcing thereby facilitating local manufacturing in sectors, such as solar equipment, which is expected to bolster India's efforts to attract global firms.

### Construction of Arun-III hydropower project

The construction of India-assisted Arun-III hydropower project in Nepal's Sankhuwasabha district is on fast-track as five Indian banks and two Nepali banks have committed to lend debts for construction of the 900 MW mega power project. Nabil Bank, which is one of the lenders for the project from Nepali side, signed a pact with India's Satluj Jal Vidyut Nigam (SJVN), setting a record of largest ever foreign direct investment in Nepal.

Anil Keshari Shah, CEO of Nabil Bank said, "This type of engagement of Nepali banks during the construction of Arun-III hydropower project will test capability of Nepali banks as well as lend new experience in these types of big projects."

"Our engagement with SJVN for Arun-III has increased our aptness. Back in February, we had a financial closure which means we will be on ground to support them which in turn will be support for the whole nation," Shah said.

"Apart from experience for us, the project also provides employment to locals. As we are associated with the project, we will have the benefit that salary of employees will go through our bank. Also, the transactions for purchase of goods and materials will also be made through us. It is indeed a new experience for us," he added.

Everest Bank and Nabil Bank from Nepal agreed to provide debt of 1,536 crores Nepali rupees for the project whereas five Indian banks – State Bank of India, Punjab National Bank, Axim Bank, and UBI have pledged 8,598 crore Nepali rupees for the same.

The total debt tied up with banks is 7,860 crore Nepali rupees plus 2,274 crore Nepali rupees as a stand-by line of credit. The SJVN Arun-III Power Development Company Pvt. Ltd, incorporated for construction of the project on April 25, 2013, will be investing approximately 11,000 crores Nepali rupees in Nepal over the next five years.

The total investment of the project is estimated to cross Rs.115 billion, including Rs 11 billion for the development of the transmission line. With the completion of the project, Nepal will get 21.9 per cent of the total electricity produced in a year i.e. 197 MW electricity with 86 crores units for free in a year. Arun-III has 3.65 hours of minimum peaking capacity envisaged for installation of four generating units of 225 MW each gives the project a total installed capacity of 900 MW.

The estimated cost of the project to be completed within five years stands at USD 1.04 billion and would produce 4,018.87 million units of electricity a year.

The project is being developed on a build-own-operate and transfer basis by SJVN Arun-III Power Development Company (SAPDC), a joint venture of the Government of India and the Government of Himachal Pradesh. The SJVN signed a Memorandum of Understanding (MoU) for the execution of the project with the Government of Nepal in March 2008.

With the deal finalised and the construction in full swing, the SJVN will operate the power plant for a concession period of 30 years, following which the ownership will be transferred to the Nepal government. It will provide 21.9 per cent of free power to Nepal during the concession period. The project is expected to generate 3,000 jobs during construction in India and Nepal together.



Arun-III hydropower project Nepal's largest hydro project and is being built with India's assistance

### IIT-KGP researchers awarded for generating power from wet clothes

It is reported that a group of researchers from IIT Kharagpur has been conferred the 'Gandhian Young Technological Innovation Awards 2020' for developing a mechanism for generating electricity from wet clothes left under sunlight to dry.

Another team from the institute was separately granted the same award for addressing the problem of energy conservation and thermal management in wearable and flexible electronic devices.

Congratulating the researchers, IIT Kharagpur Director Prof Virendra Tewari said, "We still have sectors which need sourcing and efficient management of clean energy to meet our augmented power requirements, even in the remote areas."

The 'Gandhian Young Technological Innovation (GYTI) Awards' was instituted by the Society for Research and Initiatives for Sustainable Technologies and Institution (SRISTI), a voluntary organization.

SRISTI said that GYTI Award celebrates the spirit of student innovation in all the fields of engineering, science,

technology and design through extremely affordable/frugal solution or the ones pushing the technological edge.

The spokesperson said that Prof Suman Chakraborty, Prof Partha Saha and Dr Aditya Bandopadhyay from the Department of Mechanical Engineering have been awarded for their work on "Electrical power generation from wet textile".

Prof Sunando Dasgupta and his team from the Department of Chemical Engineering have also been awarded for their work - "Smart, flexible, and multi-functional thermal and energy management systems for next-generation electronic devices".

The novelty of the first innovation, the nano-electricity generator, is in its frugal means instead of energy harvesting from complex resources. The device has been tested in a remote village where around 50 wet clothes were left for drying by washermen. These clothes were connected to a commercial super-capacitor which discharged electricity of around 10 volt. This stored energy is enough to glow a white LED bulb for more than an hour.

"The clothes we wear are made from cellulose-based textile which has a network of nano-channels. Ions in saline water can move through this interlace fibrous nano-scale network by capillary action inducing an electric potential in the process," explained the researchers from the department of mechanical engineering.

The work has been published in Nano Letters, a highimpact journal in the field, and the innovation has been patented by them.

The group led by Prof Sunando Dasgupta has been working in collaboration with Purdue University, USA, to address the problem of energy conservation and thermal management in wearable and flexible electronic devices. They achieved this by leveraging the unique properties of 'smart materials' materials that sense and react to environmental conditions or stimuli such as mechanical, chemical, electrical, or magnetic signals-infused with graphene, a form of carbon.

### Nine killed in fire at Telangana's Srisailam hydropower plant

Nine persons who were trapped inside the Srisailam Left Bank Hydel Power Station (SLBHP) of the Srisailam reservoir in Telangana of Telangana State Power Generation Corporation Limited (TSGENCO) have recently lost their lives in the fire accident while three injured employees are getting treatment at the hospital. There were 17 people in the plant at the time of the accident. Eight of them could safely come out, but nine were trapped inside the plant.

"The fire accident occurred in the 900 MW capacity hydropower station on the left bank of Srisailam reservoir at 10.30 pm on August 20. The fire broke out in the panels in unit 1 of the power station which led to the accident. The employees tried to put off the fire and save the plant from burning. The employees tried their level best till 12 am last night, but in vain. The plant is 1.2 km deep from the earth's surface and there is only one tunnel to go there.

### TATA Projects completes Surathani-Phuket transmission line project in Thailand

Tata Projects Limited, one of India's fastest growing and most admired infrastructure companies, and its consortium partner have completed an important 110-km stretch of the 200km Surathani-Phuket transmission line project in Thailand. This 500kV transmission line is an achievement since it passes through thick jungles and mountainous terrain.

This project will bring additional electricity to Phuket thereby improving the lives of citizens. Out of the Tata Projects led consortium's 110-km stretch, about 80-km was executed by Tata Projects and the remaining by its partner. The company utilised drone technology for stringing of transmission lines thereby reducing timeframe and avoiding manual work.

"We are proud to complete this important transmission line project which is a true testimony of our top-notch expertise and vast experience. With successful completion of our second transmission line project in Thailand, we have once again proved our execution capabilities not only in India but also around the world. Going forward, we shall continue to deliver projects on-time, using world-class project management techniques and uncompromising standards of safety," said Vivek Gautam, COO, Tata Projects Ltd, while speaking about the project.

All tower foundations were completed using ready mixed concrete which is a symbol of 100 per cent concrete quality. Additionally, Tata Projects also prepared approach roads for ready mixed concrete trucks.

A unique aspect of this project is that it is the first 500 kV transmission line passing from Phang-nga province. Phang-nga is a province in Southern Thailand, bordering the Andaman Sea on the West Coast of the Malay Peninsula.

Prior to this Surath-Phuket transmission line project, Tata Project led consortium had successfully executed an 80-km stretch of 500kV Roi Et 2 - Chaiyaphum 2 transmission line project in August 2019. It was the company's first successfully executed transmission line project in Thailand.

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