

Environment News Futures

Clean Environment Cess to Inflate Coal Price, Power Tariffs

PTI—February 29, 2016

New Delhi/Kolkata: Power tariffs may rise up to 16 paise per unit while coal prices may go up by 20 per cent with the government today proposing doubling the clean energy cess to Rs 400 a tonne levied on coal, lignite and peat. While presenting the budget for 2016-17, Finance Minister Arun Jaitley said that the Clean Energy Cess levied on coal, lignite and peat has now been renamed as Clean Environment Cess. “Its incidence has been increased to Rs 400 per metric tonne, from Rs 200 per metric tonne,” he said. Commenting on the proposed cess, Manish Aggarwal, Partner and Head of Energy and Natural Resources, KPMG in India said, “While good from overall environment perspective, this goes against stated intent to reduce cost of power to industry.” The per unit impact of additional increase would be roughly 12 to 16 paise per unit, he added. Bharat Aluminium Co Ltd Non-Executive Chairman S.K. Roongta said that proposed hike in coal cess will increase the cost of power which will have to be passed on to consumers to that extent. The cost of power may go up by about “10 paise per unit”, Roongta said, adding that it will impact industry and general consumers.

According to PwCs Kameswara Rao, increase in carbon cess was expected as it was doubled in the last two years, but still well below the imputed cost of carbon. “This would increase cost of power by an average 10 paise per kWh. But it would also enhance the funding available with the government for supporting renewable energy manufacturing and renewable power plants,” Rao said. Meanwhile, a Coal India official said that the cess is likely to shoot up the PSUs average notified coal price by around 20 per cent. “Our average coal price (notified segment) is Rs 1,000-1,100 per tonne and an increase of Rs 200 per tonne is almost 20 per cent rise in coal price,” the official said. Sources said that the impact of cess on power tariffs will be much more for south India power plants that procure mostly low-grade coal which is priced at Rs 700-800 per tonne from Mahanadi Coalfields.

This will be because the Rs 200 per tonne additional levy will jack up coal price by as high as 25 per cent, sources said. Earlier, the government had increased the Clean Energy Cess from Rs 100 to 200 per tonne of coal to finance clean environment initiatives for 2015-16.

What Happens During a Key Manufacturing Process of Silicon Solar Cells?

Scientists at the Energy Department’s National Renewable Energy Laboratory (NREL) and SLAC National Accelerator Laboratory have been able to Pinpoint for the First Time

Their paper, “The formation mechanism for printed silver-contacts for silicon solar cells,” appears in the journal *Nature Communications*. The paper was co-authored by NREL’s Jeremy Fields and

SLAC's Imteyaz Ahmad, and the principal investigators on the project were Maikel van Hest of NREL and Michael Toney of SLAC. The other researchers involved were NREL's Philip Parilla, SLAC's Vanessa Pool and Douglas Van Campen, and Stanford University's Jiafan Yu. Stanford operates SLAC.

The paste used in the manufacturing of the solar cells contains silver powder, glass frit (a mixture of metal oxides, such as lead oxide, boron oxide, zinc oxide, and bismuth oxide), and an organic binder. Researchers are looking for an alternative because silver is costly and lead oxide in the glass frit can harm the environment.

Earth's Internal Heat Drives Rapid Ice Flow, Subglacial Melting in Greenland

April 4, 2016—Helmholtz Centre Potsdam – GFZ German Research Centre for Geosciences

The North Atlantic Ocean is an area of active plate tectonics. Between 80 and 35 million years ago tectonic processes moved Greenland over an area of abnormally hot mantle material that still today is responsible for the volcanic activity of Iceland. The mantle material heated and thinned Greenland at depth producing a strong geothermal anomaly that spans a quarter of the land area of Greenland. That distant history of the North Atlantic region contributes to the present-day ice loss, suggests a new report.

Western Lifestyle Spells the End of Biodiversity

New Research Identifies the Historical Trends that Suggest We Should be Worried About the Planet's Future

April 4, 2016—National Research Tomsk State University

Contrary to what many economists suggest, 'development is not always good for Nature,' a biologist argues. It is broadly accepted that biodiversity and the ecosystem are both fundamental to sustaining humanity and life on Earth, but in recent centuries they have been subject to heavy pressures due to overexploitation. Environmental protection is also raising concerns because of our improved understanding of the interconnections between human wellness and ecosystem health.

Government Notifies Rules to Dispose of Garbage; Puts Special Attention on Managing Sanitary Waste

Vishwa Mohan | TNN—Apr 5, 2016

New Delhi: Manufacturers of sanitary pads/napkins and diapers in India will have to provide a pouch or wrapper for disposal along with the packets of their sanitary products.

The government made this provision mandatory for manufacturers of sanitary products under its new solid waste management rules, released by the Union environment and forests minister

Prakash Javadekar on Tuesday. The provision is made under the new rule keeping the concerns of rag-pickers or waste collectors in mind. Under the rules, the manufacturers are also advised to educate the masses for wrapping and disposal of their products using the pouch.

The new rules have also empowered the local municipal bodies to levy ‘user fee’ on bulk garbage generators including resident welfare and market associations, group housing societies, hotels, restaurants and event management companies among others. The civic bodies, which will implement the rules within their respective jurisdictions, will also be free to impose ‘spot fine’ for littering and non-segregation of waste (into bio-degradable or non-biodegradable) at source.

The jurisdiction of the rules has for the first time been extended beyond municipal areas to cover all notified industrial areas, census towns, outgrowths in urban agglomerations, areas under the control of Indian railways, airports, airbase, ports, defence establishments, special economic zones (SEZs) and even places of pilgrims and religious/historical importance.

Releasing the new rules, Javadekar emphasized that the government is keen on the “integration of ragpickers from the informal sector to the formal sector”. He said, “Integration of waste collectors or rag-pickers and waste dealers/Kabadiwalas in the formal system should be done by state governments, and Self Help Groups, or any other group to be formed”.

Noting that the source segregation of waste has been mandated to channelize the “waste to wealth by recovery, reuse and recycle”, the minister said, “Responsibilities of waste generators have been introduced to segregate waste in to three streams, ‘Wet’ (Biodegradable), ‘Dry’ (Plastic, Paper, metal, wood, etc.) and ‘domestic hazardous wastes’ (diapers, napkins, empty containers of cleaning agents, mosquito repellents, etc.) and handover it to authorized rag-pickers or waste collectors or local bodies”.

Referring to the other provisions, Javadekar said, “No person should throw, burn, or bury the solid waste generated by him, on streets, open public spaces outside his premises, or in the drain, or water bodies”. Under the new rules, all resident welfare and market associations, gated communities and institution with an area of more than 5,000 sq m should segregate waste at source to valuable dry waste like plastic, tin, glass and paper and handover recyclable material to either the authorized waste pickers or the authorized recyclers, or to the urban local body.

The bio-degradable waste should be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste will be given to the waste collectors or agency as directed by the local authority. c Zone, industrial estate, industrial parks should earmark at least 5% of the total area of the plot or minimum five plots/sheds for recovery and recycling facility.

Besides, all manufacturers of disposable products such as tin, glass, plastics packaging etc. or brand owners who introduce such products in the market shall provide necessary financial assistance to local authorities for the establishment of waste management system.

China Braces for “Severe” Flooding on Yangtze River

Reuters—Apr 2, 2016

Beijing: Severe floods are expected on China’s Yangtze River this year due to a strong El Nino weather pattern, state media said, raising the risk of deaths and damage to property and crops along the country’s longest waterway.

The El Nino conditions are the strongest since records collection began in 1951, and resemble a 1998 weather pattern that flooded the river and killed thousands, the official Xinhua news agency

said on Friday, citing vice minister of water resources, Liu Ning. “Precipitation in the upper, middle and lower reaches of the river is forecast to be as much as 80 percent more than normal from May to August,” Xinhua said.

Some Yangtze tributaries had already begun flooding and the flood control and drought relief situation was “extremely severe”, Liu said, according to the news agency. Provinces and cities along the river needed to make contingency plans, Xinhua cited Wang Guosheng, the governor of central Hubei province, as saying. China has frequently been devastated by natural disasters, particularly by floods and earthquakes that have claimed millions of lives over the centuries. Flooding, an annual problem, has been exacerbated by urban sprawl and poor drainage infrastructure in many cities.

Xinhua said 1320 people died in the 1998 floods, though estimates vary and some put the death toll at more than 4000. Floods could be a test of the water management capabilities of the controversial \$59 billion Three Gorges Dam, which was finished in 2012. Along with power generation and navigation, the dam was designed for controlling the Yangtze’s water levels.

The ongoing El Nino, a warming of sea-surface temperatures in the Pacific, has been linked to serious crop damage, forest fires and flash flood and drought around the world. Experts have warned that changing global climate leading to extreme weather will likely have an impact on the world’s most important commodity crops—maize, soybean, wheat and rice. Most of the global production of these four crops comes from a small number of countries such as China, the United States and India.

World’s First Sanctuary for White Tigers Opens in MP

Jayashree Nandi | TNN—Apr 3, 2016

Rewa: Politicians share space with white tigers on hoardings put up across Rewa, Madhya Pradesh, in preparation for the opening of the world’s first white tiger sanctuary. As thousands converged for the inauguration on Sunday, shouting slogans, the ceremony began to resemble an election rally. Fairly so, for locals say the white tiger has been an election issue here for years now.

The 25-hectare sanctuary at Mukundpur, 20 km from Rewa, is currently home to only one white tiger, Vindhya. There are two others in an adjoining zoo. Locals in Rewa consider the white tiger—the colour of whose coat is the result of a genetic aberration—a part of the city’s legacy. The first such big cat was spotted here by erstwhile king Martand Singh in 1951. The royal family named him Mohan, and he became “a pet, a family member”, says Pushpraj Singh, Martand’s son. Mohan’s cubs were thereafter distributed to zoos in India and abroad. They were reportedly inbred to create a white tiger progeny. But they disappeared completely from Rewa in 1976.

It has been a political issue since because locals associate it with their heritage and believe tourism revenue generated from their return can prove a turnaround for a parched city. The sanctuary was inaugurated by Union environment minister Prakash Javadekar and CM Shivraj Singh Chouhan. Javadekar said the sanctuary would bring a “7-star status” to Rewa and promised to set aside funds for a safari. Chouhan added that the project would bring jobs as tourists pour in.