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Educating & Informing Stakeholders on Energy, Environment & Thermal Power Plants

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Relevant Websites & Contacts

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WATER CESS—PART 1

Water (Prevention and Control Act) [1977](#) amended in [2003](#), authorizes for the levy and collection of cess on water which is used by industries. The Act applies to all the States of India except Jammu and Kashmir. Industries and local authorities that consume water and create sewage and trade effluent are liable to pay water cess.

- Water cess is collected at different rates under each category
- Industrial cooling, spraying in mine pits, or boiler feeds
- Domestic purposes
- Processing whereby water gets polluted and the pollutants are easily bio-degradable
- Processing whereby water gets polluted and the pollutants are not easily biodegradable.

The water cess rates are mentioned under Schedule II of the Act. In case of any non-compliance with the standards, a higher rate is prescribed. Any delay in payment attracts interest at the rate of 2% per month or part of the month. If there is a failure of payment, penalty has been imposed. In the case of local authority they shall be given chance to hear their case and if the authority thinks fit there is no need of imposing a penalty.

To calculate the amount water consumed, meter with specific standards is fixed at prescribed locations. If the person or the body fails to affix the meter, Central Government after notice shall affix the meter. The cost of meter and affixation charges will be recoverable from the person or organisation.

If sewage treatment or trade effluent treatment facility is established then they can avail a rebate of 25% in the total amount, especially if their consumption is within limits and they comply with the standards specified under section 25 of the Act. Exempting an industry from paying water cess depends on the nature of raw material, manufacturing process employed, effluent generated, water extraction, effluent receiving bodies, water consumed per unit of production and location of the industries.

The collected amount by the state government goes to the Consolidated Fund of India, if provision is made by the parliament the amount has to be paid to the central government from time to time after deductions for charges for collection and amount deems fit to be spent under water cess act.

Any officer or authority empowered by the state government by this act, at his discretion can inspect the correctness of the affixed meter at any place or any time which he may think appropriate.

Industry requirements: Industries should submit amount water required for each purpose in their Environmental Impact Assessment (EIA) report. Environmental Appraisal Committee (EAC) or State Environmental Appraisal Committee (SEAC) should assess the technical report and consider the water availability of the area. Thereafter, it will allow the industry to draw certain amount of water, which should not exceed the allotted amount. The state pollution control board will also allot the quantity of water should be taken by the plants in Consent to Establish (CTE) and Consent to Operate (CTO) given to the plant.

Water consumption limit for thermal power plants (December [2015](#))

- Plants with using once through cooling methods should install cooling tower and should achieve specific water consumption of 3.5 m³/MWh within 2 year period from the date of notification.
- Existing cooling tower based plants should bring their specific water consumption to 3.5 m³/MWh within 2 year period from the date of notification.
- New plants to be installed after January should have the specific water consumption of 2.5 m³/MWh and achieve zero liquid discharge

ENGINEERS URGE GOVT NOT TO BURDEN CONSUMERS

The All-India Power Engineers Federation (AIPEF) has asked the Centre and the state governments to bear the expenditure on new emission norms and not to burden common consumers on this account.

The federation has questioned the assessment of the ICRA regarding the hike of power generation cost by 13 to 22 paise per unit and has asked the Ministry of Power to clarify it by giving actual details of expenditure on new emission norms.

According to ratings agency ICRA, thermal power companies would spend around Rs 1.2 lakh crore to conform to the new norms over the next 2-3 years. Thermal power producers are free to pass on the cost of conformation to standards to consumers who would see power costs go up between 13 and 22 paise per unit, apart from entailing additional O&M charges.

The revised emission norms

notified by the Ministry of Environment and Forests for thermal power projects are likely to impact 1,87,000 MW of operational coal-based capacity and 74,000 MW of under-development capacity. As per the ICRA's estimates, these norms would entail a capital investment of Rs 60 lakh to Rs 1 crore per MW, based on the age of the plant. This amounts to an aggregate capex requirement of about Rs 1.2 lakh crore, which is likely to materialise over a 2-3-year period.

The existing thermal power plants are required to follow the revised standards within two years from the date of publication of the notification - December 2015, whereas new plants starting their operations from January 2017 are required to comply with these norms from the commissioned date.

Compliance by the generating companies or independent power producers to meet these

norms, within the given timeline, remains challenging due to their apprehensions in terms of cost recoverability and timely approvals for the pass through of such a cost under the change in law by the regulators.

Power generating companies are likely to be able to pass on the higher cost of generation to the off-takers, primarily state-owned distribution utilities under the 'change in law' mechanism in the power purchase agreement. This would put an upward pressure on the retail tariffs, which could be seen in the financial year 2019, assuming that the generating companies implement the revised norms over the next two years. Further, adequacy of tariff hikes by the regulators for the distribution utilities factoring such an increase in the cost of coal-based generation remains important from their cash flow perspective. [The Tribune](#) December 02, 2016

As of now 122 countries ratified Paris agreement and India is one among them.

OKHLA PLANT FLOUTING NORMS: RESIDENTS TO NGT

While applying for environmental clearance, the Okhla Waste-to-Energy plant said it was at a safe distance from residential areas but the first house in Sukhdev Vihar is a 100 metres away from the plant, residents of the area have told the National Green Tribunal (NGT).

During the hearing of the plea, filed by residents of Sukhdev Vihar against the company that operates the plant, the representatives for the applicants presented a copy of the environment impact assessment report which said that Sukhdev Vihar was 6.5 km away from the site of the waste-to-energy plant.

"Facts were misrepresented. It

has been mentioned that Sukhdev Vihar is 6.5 km away from the plant when it is barely a 100 metres away from the colony boundary wall. The report also says the area to the north of the plant, as compared to the others, has low population and that Zakir Nagar and New Friends Colony are 1.8 km and 2 km away from the plant respectively. They have erased us out! We do not exist...," said Amit Chadha, a resident and the counsel for the applicants.

The case against the plant has been going on since 2009. It was heard in the High Court till 2013, after which it was transferred to the NGT. Residents said several rules were broken while setting

up the plant and that there was a violation of the master plan.

According to documents presented in court, the land where the plant is located was meant for public use, for example a park. "Schedule III (of municipal solid waste rules 2000) provides that waste processing facilities should be an integral part of landfill sites and have to be away from habitation...," Chadha said.

Officials of the plant have denied the allegations and said they meet guidelines. The tribunal has asked the officials to reply to the residents' allegations this week. [The Indian Express](#) December 04, 2016

LATIN AMERICA IS SET TO BECOME A LEADER IN ALTERNATIVE ENERGY

BESIDE the Pan-American Highway, almost 600km (375 miles) north of Santiago, Chile's capital, lies El Romero, the largest solar-energy plant in Latin America and among the dozen biggest in the world. Its 775,000 grey solar panels spread out across the undulating plateau of the Atacama desert as if they were sheets of water. Built at a cost of \$343m by Acciona Energía, a Spanish company, last month El Romero started to be hooked up to the national grid. By April it should reach full strength, generating 196MW of electricity—enough to power a city of a million people. A third of its output will be bought directly by Google's Chilean subsidiary, and the rest fed into the grid.

El Romero is evidence of an energy revolution that is spreading across Latin America. The region already leads the world in clean energy. For almost seven months this year, Costa Rica ran purely on renewable power. Uruguay has come close to that, too. In 2014, the latest year for which comparable data exist, Latin America as a whole produced 53% of its electricity from renewable sources, compared with a world average of 22%, according to the International Energy Agency.

The region's impressive clean-energy production is boosted by an abundance of hydropower. Big dams are increasingly controversial: in recent years, Brazil and Chile have blocked hydroelectric projects in environmentally sensitive areas. Alternative energy sources, such as wind, solar and geothermal, still only account for around 2% of Latin America's output, compared with a world average of 6%. Nonetheless, there are several reasons to think this share will

grow quickly.

One is the region's natural endowment. El Romero, for example, enjoys 320 days of sunshine a year. On the horizon, amid the Andean mountaintops, sit two astronomical observatories, testament to the clarity of the air. Much of Latin America is well suited to solar and wind power; volcanic Central America and the Caribbean have geothermal potential.

Worldwide, technological progress and economies of scale have slashed the cost of green energy. Once built, solar plants are much cheaper than thermal power stations to operate. "El Romero is a symbol that alternative energy is no longer alternative. It's the most commercial now," says José Ignacio Escobar, Acciona Energía's boss in Chile.

Countries such as Chile, Brazil, Mexico and recently Argentina have tweaked their regulations to encourage alternative energy without having to offer subsidies. Some have held auctions for generation contracts purely for renewables, points out Lisa Viscidi, an energy specialist at the Inter-American Dialogue, a think-tank in Washington. Chile's regulatory framework is trusted by investors; it has encouraged renewable generation by auctioning smaller contracts. It has set a target of producing 20% of its electricity from non-hydro renewable sources by 2025. Argentina and Mexico have similar goals.

There are two pitfalls. In Chile, the penalty for failing to fulfil contracts is low, which means the winners of auctions may pull out later if they do not raise financing. Moreover, both solar and wind power are intermittent. That means they need to be paired with baseload generation. In many Latin American coun-

tries this tends to come from natural gas, which emits less carbon than oil, though in Chile it is coal. Greater efforts to connect grids between countries might reduce the need for fossil fuels as a backup.

Renewable energy offers big benefits to the region. Chile is short of domestic fossil fuels. As a result of its latest auction of energy contracts, by 2025 prices should be a third lower than they are now, reckons Andrés Velasco, a former finance minister. By promoting renewables, Latin America is helping to curb carbon emissions globally—though it also needs to do more to stop deforestation and encourage public transport.

That matters for political as well as altruistic reasons. Latin Americans worry more than anybody else about climate change, according to polling by the Pew Research Centre, a think-tank. They have good reason. The region is prone to natural disasters and extreme weather. To take one current example, Bolivia last month imposed water rationing in La Paz, the capital. The three reservoirs that serve the city are almost dry. Lake Poopó, once a large freshwater body in the altiplano, has all but dried up, seemingly permanently.

Outside Chile and Colombia, coal deposits are scarce in Latin America. That is one reason why industrialisation came late to the region. In the 21st century, it may turn out to be an advantage in helping Latin America move swiftly to a post-carbon economy.

[The Economist](#) December 10, 2016

Smog, which is a serious concern nowadays, has the potential to cause many kinds of breathing disease/disorder on inhalation.

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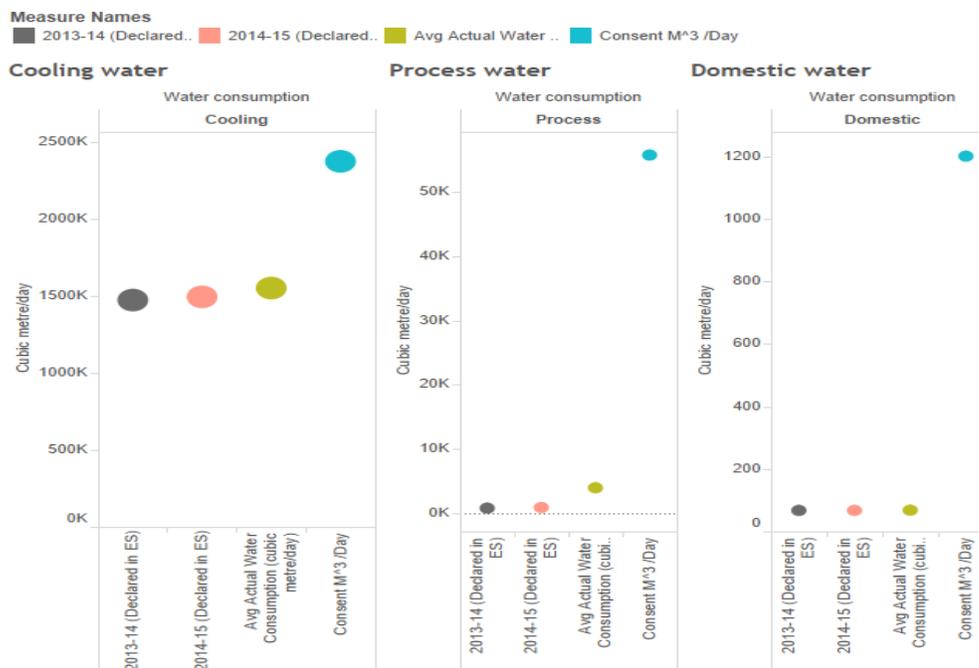
<http://thermalwatch.org.in/>



Citizen consumer and civic Action Group (CAG) is a non-profit, non-political and professional organization that works towards protecting citizens' rights in consumer and environmental issues and promoting good governance processes including transparency, accountability and participatory decision making.

WATER CONSUMPTION—NCTPS-I

CAG'S ANALYSIS



REGULATIONS AND CASES

- Pankaj Kumar Mishra Vs Union of India & Ors [2016] Praying for protection of the environment, of the people living in village Auri in district Sonebhadra *Original Application*. No. 162 OF 2015, 24 November 2016 [Click here](#)
- Smt.Radharani Vajpayee Vs Dept of Mining, Madhya pradesh & Ors [2016], Ban of mining in the hills of Dewas, *Original Application*. No. 140/2013(CZ), 15 December 2016 [Click here](#)

PUBLICATIONS

- Raptis, CE, Vliet, M. and Pfister, S. (2016) Global thermal pollution of rivers from thermoelectric power plants. *Environmental Research Letter*. [online] Volume 11 doi:10.1088/1748-9326/11/10/104011 [Accessed 03 Jan. 2017] [Click here](#)
- European Environmental Agency (2016) *Environmental indicator report 2016* [online] Luxembourg: European Union [Accessed 09 Jan. 2017] [Click here](#)

MISCELLANEOUS

- 8th International Conference on Environmental Science and Development, Frankfurt, Germany 8 -10 February , 2017 [Click here](#)
- 3rd International Conference on Environment and Renewable Energy (ICERE 2017), , Hanoi, Vietnam 25-27 February, 2017 [Click here](#)