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Relevant Websites & Contacts

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Website: <http://www.greentribunal.gov.in/>

MONITORING THERMAL POWER PLANTS- ENVIRONMENT STATEMENT—PART 1

Environmental statement can be defined as a management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organizations, management and equipment are performing with the aim of helping to safeguard the environment by i) Facilitating management control of environmental protection, ii) Assessing compliance with company policies which, would include muting regulatory requirements.

Environmental audit was first started in India in 1992 which made it mandatory for all industries to provide annual environmental audit reports of their operations, beginning with 1992-93. But out of the lakhs of industries that exist in India, only 2,995 audit reports were filed by December 1993. Due to the large scale non-compliance, the term Audit Report was replaced by Environmental Statement in 1993. This change has impacted the promotion of environment over economic development.

Environmental Statement is a report submitted to the concerned State Pollution Control Board (SPCB) by the industries which requires consent to operate under Water Act 1974 and/or Air Act 1981 and an authorization under Hazardous Wastes (Management and Handling) Rules, 1989 (Amended in 2016). The Statement has to be submitted on or before 31st September for every financial year. This statement contains the details of the raw material and water consumed by the industries, the quality and quantity of pollutants discharged, the hazardous wastes, its quantity and disposal, solid wastes quantity and disposal, and pollution abatement measures.

This article will give the various sections that form the Environmental Statement and will seek to demystify:

A. Water consumption

1) Water consumption m ³ /d		2012 – 2013	2013 – 2014
Process		681 m ³ /d	717 m ³ /d
Cooling		1575992 m ³ /d	1474245 m ³ /d
Domestic		67 m ³ /d	67 m ³ /d
Name of Product	Process Water consumption per unit of product output		
		During the previous financial year (2012 – 2013)	During the current financial year (2013 – 2014)
Electricity	50 ml/Kwhr	49ml/Kwhr	

The water consumption details are split into three categories

- 1) **Cooling water** is required for condensing of steam in a surface condenser and for secondary cooling in heat exchangers of equipment cooling system for plant auxiliaries. Cooling water system may be of once through type or closed cycle type using cooling tower.
- 2) **Domestic water** refers to potable and service water. Any water used for drinking and other purposes such as cleaning, water used in toilets are considered as domestic water in environmental statement.
- 3) **Process water** refers to all the other process which consumes water other than the above two purposes. As the per [CEA's report](#) the process where a thermal plants utilise water are ash slurry making, DM water, equipment cooling system, air conditioning and ventilation, coal dust suppression, gardening, evaporation from raw water reservoir.
- 4) **Specific water consumption and fuel consumption** should also be mentioned. This specific consumption indicates the efficiency of the industry. if there is random change in the specific consumption the efficiency of the plant needs to be suspected. (to be continued)

INDIAN FIRM MAKES CARBON CAPTURE BREAKTHROUGH

A breakthrough in the race to make useful products out of planet-heating CO2 emissions has been made in southern India. A plant at the industrial port of Tuticorin is capturing CO2 from its own coal-powered boiler and using it to make baking soda.

Crucially, the technology is running without subsidy, which is a major advance for carbon capture technology as for decades it has languished under high costs and lukewarm government support. The firm behind the Tuticorin process says its chemicals will lock up 60,000 tonnes of CO2 a year and the technology is attracting interest from around the world.

Debate over carbon capture has mostly focused until now on carbon capture and storage (CCS), in which emissions are forced into underground rocks at great cost and no economic benefit. The Tuticorin plant is said to be the first unsubsidised industrial scale example of carbon capture and

utilisation (CCU). There is already a global market for CO2 as a chemical raw material. It comes mainly from industries such as brewing where it is cheap and easy to capture.

Until now it has been too expensive without subsidy to strip out CO2 from the relatively low concentrations in which it appears in flue gas. The Indian plant has overcome the problem by using a new CO2-stripping chemical.

It is just slightly more efficient than the current CCS chemical amine, but its inventors, Carbon clean, say it also needs less energy, is less corrosive, and requires much smaller equipment meaning the build cost is much lower than for conventional carbon capture.

The new kit has been installed at Tuticorin Alkali Chemicals. The firm is now using the CO2 from its own boiler to make baking soda – a base chemical with a wide range of uses including glass manufacture, sweeteners, detergents and paper products.

Carbon clean believes capturing

usable CO2 can deal with perhaps 5-10% of the world's emissions from coal. It's no panacea, but it would be a valuable contribution because industrial steam-making boilers are hard to run on renewable energy.

The inventors of the new process are two young chemists at the Indian Institute of Technology in Kharagpur.

They failed to find Indian finance and were welcomed instead by the UK government, which offered grants and the special entrepreneur status that whisks them through the British border.

By producing a subsidy-free carbon utilisation project, Carbonclean appears to have something of a global lead. But it is by no means alone. Carbon8 near Bristol is buying in CO2 to make aggregates, and other researchers are working on making plastics and fuels from waste CO2. At last, it seems, the race to turn CO2 into profit is really on.

[The Guardian](#) January 3, 2017

Pseudomonas putida, a genetically engineered bacteria, is called as "oil eating bacteria" because of its ability to digest hydro-carbons found in crude oil.

NGT UPHOLDS CRZ CANCELLATION OF RAJAKKAMANGALAM HARBOUR

The southern Bench, comprising Justice M.S. Nambiar and expert member P.S. Rao of the National Green Tribunal, refused to overturn the MoEF decision to cancel the CRZ clearance on the grounds that the proposed project area was a turtle nesting area and there were sand dunes, bringing it under CRZ I-A, and hence "no clearance could/would have been granted".

The Bench, in its 78 page judgment, also took note of suppression of material facts by the appellant, based on which the MoEF had initially granted the CRZ clearance. The MoEF, in 2015, cancelled the CRZ clearance after it found that the company had got the clearance by submitting a "false statement"

of District Forest Officer, Nagercoil, that said there were no sand dunes on the Rajakkamangalam coast.

"The existence of sand dunes in the project area, which was suppressed in the proforma submitted by the appellant, for clearance and terming them as sand heaps or dune vegetation is material suppression," the Bench said. The appellant also did not specifically mention the existence of turtle nesting area in the project site, the Bench observed.

The Bench also referred to a notification of the Tamil Nadu government that identified 18 locations in Kanyakumari district that were potential turtle nesting sites, of which Rajakkamangalamthurai was one.

"Hence, when it is a turtle nesting area, definitely, the area would come under CRZ I-A of CRZ Notification 2011 under para 7(1)(g). If that be so, this fact is an additional ground to support the cancellation of CRZ clearance granted to the appellant," the Bench said.

The authority which grants the clearance always has the power to cancel it. The Bench also observed that when sand dunes were present not only in one section but also in the area between the sea and other sections, "there cannot be a fishing harbour without causing irreparable damage to the sand dunes, which lie between the project area and the sea".

[The Hindu](#) January 12, 2017

'CLEAN COAL' IS A PERSONAL ENDEAVOUR NOT LINKED TO LOBBY

A 'clean coal' advocacy organisation which is opposed to higher renewable energy targets and seeks to give a voice for businesses "being crippled by massive gas and electricity bills" has been launched by a former spokesman for AGL, with apparent assistance from a former advisor to Malcolm Turnbull.

The Australian Power Project, which appears to have launched in late 2016, calls for businesses affected to share their stories and urges government to take a "middle road" in energy policy, and has been quoted in media reports.

"This cost burden makes it difficult for businesses to grow and to employ more Australians, meaning the entire national economy is paying a heavy price," its website said.

"The recent State-wide power blackout in South Australia has finally focused minds in Canberra on the very real challenges being faced by Australian businesses caused by out-of-control energy prices – a situation which can only be made worse by the introduction of high renewable energy targets."

Its chief executive, Nathan Vass, is a former head of corporate communications for AGL and former group manager for corporate affairs at Fortescue Metals but said the project was a personal endeavour and he was "not working for or with anyone else or any organisation".

On Monday Vass published an opinion piece in the Australian praising federal resources minister Matt Canavan for pledging that coal would remain a key part of Australia's energy mix. He urged Turnbull to seize the "unexplored middle ground"

between reducing emissions and keeping electricity prices down.

Vass pointed to clean coal, and to carbon capture and storage, a technology under development and of contested viability, but which Vass said had "struggled to gain political traction ... In part due to the tough task of selling the process of pumping up to 90% of the carbon emitted from power stations several kilometres below the earth's surface, where it is then stored – perhaps indefinitely. In reality, this process simply returns the carbon to where it originated and has been safely stored for many millions of years."

The article described the project as an organisation promoting sustainable energy policy.

Vass was not available to be interviewed, but in emails told Guardian Australia he set up the organisation as a personal project after the South Australian blackout which he said "highlighted the lack of leadership in the energy space".

He said he hoped the submissions received from businesses could be considered "in the context" of the inquiries launched following the blackout. "The Project accepts Australia must meet its emission reduction commitments under the Paris Agreement and transition to a clean energy future," he said.

"But the Project believes there can be a middle path to a clean energy future that involves the utilisation of both renewables and clean coal technologies now in use around the world."

Vass said his interest in energy policy stemmed from his time working for AGL and Fortescue Metals, and that he funded the

project himself without any assistance. "What I am about is trying to get some momentum going in a discussion about energy affordability for small business so they can employ more Australians," he said.

Several posts on the project's website republished unattributed media stories and carried the byline of Thomas Tudehope, former media advisor to Malcolm Turnbull and now head of digital at lobby group Crosby Textor. After questions from Guardian Australia, the byline was removed.

Vass said he had spoken with the web developer and Tudehope's name was selected incorrectly as he had done some work for the developer in the past. Vass's LinkedIn profile describes the Australian Power Project as "the leading advocacy organisation calling for a balanced and sustainable approach to achieving a clean energy future for the nation".

"It is critical that Australia embraces a national energy policy framework that sets out a clear pathway to meeting our commitments to the Paris Agreement, while promoting prosperity and employment growth and leveraging our resource advantage as one of the world's top four coal producers."

A Facebook page set up in November for the organisation had just six members, including Vass. Two other members are former Liberal advisors, one of whom was also a corporate marketing and public relations manager for AGL. [The Guardian](#) January 11, 2017

The largest coal fired thermal power plant in the west, The Navajo Generating Station, Arizona, is scheduled to be closed later this year, due to availability of natural gas which is cheaper.

Citizen consumer and civic
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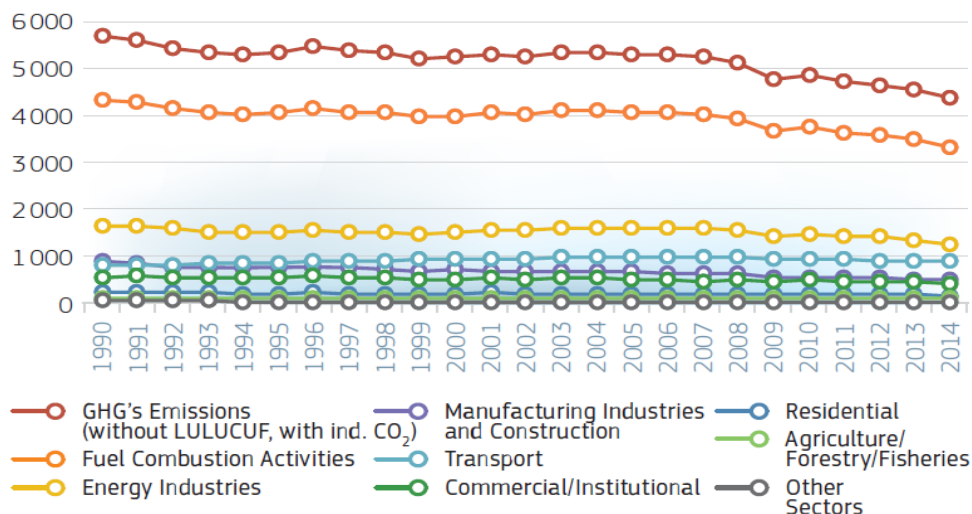
<http://thermalwatch.org.in/>



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.

GHG EMISSIONS— EU 28 ENERGY STATISTICS 2016

GHGs EMISSIONS – EU-28 – TOTAL AND FUEL COMBUSTION (MILLION ton CO₂ EQUIV.)



Source: EEA, UNFCCC v_18 June 2016
Methodology and Notes: See Annex 13 – No 4

REGULATIONS AND CASES

- Anil kumar Vs Union of India & Ors [2017], Direction to conduct EIA, *Original Application*. No. 608 of 2016, 19 January 2017 [Click here](#)
- Telangana State Pollution Control Board Paryavaran Bhavan Vs Akash Steel Industries Rep by its Proprietor Khem Chand Agarwal Ranga Reddy District [2017] Rejection of appeal to grant consent to operate *Appeal 106 to 112 of 2016 (SZ)* 25 January 2017 [Click here](#)

PUBLICATIONS

- Dahiya, S. Myllyvirta, L. and Sivalingam, N (2017) *Airpocalypse: Assessment of Air Pollution in Indian Cities*. [online] Greenpeace [Click here](#) [Accessed 20 Feb 2017]
- Saxena, Y (2016) *Wastage Management System with Zero Pollution* International Journal of Applied Environmental Sciences Volume 11(2), p 369-373 [Click here](#) [Accessed 20 Feb 2017]

MISCELLANEOUS

- 5th Global Conference on Environmental Studies (CENVISU-2017), Grand Park Lara Convention Center, Lara – Antalya, Turkey April 28-30 2017 [Click here](#)
- IAIA17: Impact Assessment Conference 2017 April 4 - 7, 2017, Montreal, QC, Canada [Click here](#)