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ENVIS CENTRE, CHANDIGARH

NewsLetter

Paryavaran - Patra

Chandigarh
State of Environment

CONSUMPTION OF ELECTRICITY

Year	Fields	Values	Unit
2008-2009	Agriculture Consumption	1.35	MKwh
2008-2009	Commercial Consumption	375.15	MKwh
2008-2009	Domestic Consumption	420.71	MKwh
2008-2009	Other Consumption	346.1	MKwh
2008-2009	Total Consumption	1143.31	MKwh

Supdt. Engineer, Electricity, 'OP' Circle,Chandigarh

EDITORIAL

India is a country of festivals and so is the city Chandigarh. The festivals are celebrated to express joy and rejoice being the most intelligent creature of mother earth. Unfortunately the sound of amusement is so louder that we are not able to hear calling nature to enact on time. The noise and air pollution caused during Diwali is not seen by many on the day but the next day while condemning others for doing so. In such an odd time, one ray of hope is new and aware generation which has taken green torch of environment to further green the world of rest. This Diwali the level of pollutants was recorded less in comparison to last year's pollutants. This is an achievement of young volunteers of the city and credit goes to awareness campaigns initiated by various organizations and Chandigarh Administration. By the way congratulation on the increasing green cover of the city, courtesy to forest department of Chandigarh.

Additional Director, Environment

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Year		2006		2007		2008		2009		
Location	Parameter mg/m^3 (24 hrly avg.)	Before Diwali Day	Diwali Day	Before Diwali Day	Diwali Day	Before Diwali Day	Diwali Day	Before Diwali Day	Diwali Day	After Diwali Day
Sector 22	SPM	189	278	207	256	340	423	201	178	128
	RSPM	80	160	77	138	163	258	82	83	60
	SO_2	2	2	2	2	2	2	BDL	BDL	BDL
	NO_x	14	15	23	25	15	22	22	18	14
Village Kaimbwala	SPM	141	171	131	173	259	261	240	167	141
	RSPM	52	71	35	76	129	139	119	92	70
	SO_2	2	2	2	2	2	2	BDL	BDL	BDL
	NO_x	17	18	13	7	4	6	14	21	28
Panjab University	SPM	121	300	228	342	299	344	309	358	337
	RSPM	60	165	-	-	-	-	89	108	106
	SO_2	2	2	5	8	7.4	8.5	8.5	9.5	10.1
	NO_x	12	24	16	21	33	35	28.9	35	38.3
Sector 29	SPM	214	325	293	477	389	537	198	189	167
	RSPM	85	181	121	282	173	213	85	84	83
	SO_2	2	2	2	2	2	2	BDL	BDL	BDL
	NO_x	21	23	21	23	21	17	34	36	21
Village Kajheri	SPM	230	417	272	464	237	349	247	376	365
	RSPM	-	-	-	-	-	-	112	122	120
	SO_2	4	7	5	9	8.6	8.9	9	9.3	9.2
	NO_x	17	21	17	23	34	39	32.8	37.1	36
Manimajra	SPM	258	424	258	439	340	403	338	403	393
	RSPM	-	-	-	-	-	-	100	115	106
	SO_2	4.5	8	5	9	8.4	9.3	10.4	11.3	10.8
	NO_x	18	22	17	23	37	40	34	40.2	41.4
Sector 9	SPM	211	267	215	319	321	373	261	368	364
	RSPM	-	-	-	-	-	-	90	112	107
	SO_2	5	8.5	5	11	7.4	8.1	8.3	9.5	9.5
	NO_x	16	18	7	14	32	35	30.4	34.6	35.7

Member Secretary, CPCC, Chandigarh

STANDARD VALUE : SPM = 200 $\mu g/m^3$ RSPM = 100 $\mu g/m^3$ SO_2 = 80 $\mu g/m^3$ NO_x = 80 $\mu g/m^3$

Noise Levels During Diwali

Year		2007		2008		2009		
Location	Noise Level (Leq) dB(A)	Before Diwali Day	Diwali Day	Before Diwali Day	Diwali Day	Before Diwali Day	Diwali Day	After Diwali Day
Sector 22	6 PM	59.6	64.5	50.3	56.0	59.7	80.9	62.8
	7 PM	65.5	82.2	48.1	70.7	60.7	71.5	64.5
	8 PM to 10 PM	61.9	71.0	56.2	87.2	62.2	82	62.1
	11 PM	63.7	70.0	61.4	90.9	56.9	62.1	49.7
Village Kaimbwala	6 PM	60.0	63.5	64.1	62.2	60.7	66.2	59.5
	7 PM	57.9	72.6	63.6	67.2	81.8	62.6	62.1
	8 PM to 10 PM	58.4	74.5	59.9	69.5	61.1	65.6	60.4
	11 PM	65.9	55.3	49.1	57.8	58	60.5	62.3
Panjab University	6 PM	50.4	58.2	56.0	60.0	60.8	62.4	63.9
	7 PM	64.2	74.8	60.6	73.0	64.6	67.2	51.9
	8 PM to 10 PM	62.6	94.2	46.7	74.0	56.7	62.2	51.9
	11 PM	55.0	82.4	46.0	61.0	60.3	78.1	67.3
Sector 29	6 PM	65.3	66.4	79.9	83.0			
	7 PM	64.9	70.3	72.8	85.3			
	8 PM to 10 PM	63.4	75.9	69.2	88.7			
	11 PM	59.9	73.2	70.4	80.7			
Village Kajheri	6 PM	60.5	67.4	62.3	85.7	56.3	72.1	55.3
	7 PM	66.2	70.8	69.0	94.8	71.1	76.3	70.5
	8 PM to 10 PM	72.2	90.4	69.8	81.3	70.2	78.5	70.3
	11 PM	72.4	85.4	61.0	81.5	73.4	79.2	67.7
Manimajra	6 PM	69.8	72.9	61.0	74.5	64.6	72.1	62.6
	7 PM	70.0	71.9	60.6	78.8	71.6	74.9	71.6
	8 PM to 10 PM	71.3	73.7	58.0	66.5	72.3	79.6	72.7
	11 PM	68.4	79.4	56.0	63.0	76.3	67.6	70.6
Sector 9	6 PM	68.7	70.3	59.3	73.1	67.3	65.4	70.2
	7 PM	70.6	73.4	62.6	86.5	56.9	71.1	68.4
	8 PM to 10 PM	67.0	76.7	66.6	67.2	64.4	70.2	66.9
	11 PM	63.6	64.6	62.0	67.6	70.5	72.1	60.6

Member Secretary, CPCC, Chandigarh

STANDARD VALUE :

Day time (6 AM to 10 PM) = 55 dB(A)

Night time (10 PM to 6 AM) = 45 dB(A)

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Press Release from CPCC

Chandigarh Pollution Control Committee monitored Ambient air quality and noise levels at 7 different locations in Chandigarh i.e. Sector 9, Sector 29, Sector 22, Panjab University, Village Kaimbwala, Manimajra, Village - Kajheri. The highlight of the analysis are as below:-

1. RSPM levels at sector 22, Kaimbwala and Sector 29 are within permissible limits whereas RSPM levels at Panjab University, Village Kajheri, Manimajra and Sector 9 exceeds the permissible limits.
2. RSPM levels at all the locations are lower than the previous year.
3. SPM levels at sector 22, Kaimbwala and Sector 29 are within permissible limits whereas RSPM levels at Panjab University, Village Kajheri, Manimajra and Sector 9 exceeds the permissible limits.
4. SPM levels at all the locations except Panjab University and Village Kajheri are lower than the previous year.
5. SO_2 levels at all the locations are within permissible limits.
6. SO_2 levels at Panjab University, Sector 9, Manimajra and Village Kajheri are higher than the previous year.
7. NO_x levels at all the locations are within permissible limits.
8. NO_x levels at all the locations except village Kaimbwala, Sector 29 and Manimajra are lower than the previous year.
9. Sound levels exceeded the permissible limits at all the locations.
10. Sound levels at all the locations except Manimajra and Sector 9 are lower than the previous year.
11. Maximum Air & Noise Pollution were found in Manimajra.

The Chandigarh Administration and Chandigarh Pollution Control Committee have taken number of steps to check Air and Noise Pollution on Diwali. This year sustained campaign was launched through various Newspapers, through Eco-Clubs of Schools to say no to crackers, which seems to have significant effect. District Magistrate has also banned bursting of crackers between 10:00 PM to 6:00 AM. Chandigarh Pollution Control Committee has also provided Sound Level Meters to all Police Stations so that noise standards are maintained.

Petroleum

There are two theories stating the origin of oil i.e. biogenic and abiogenic. Biogenic theory is generally accepted. According to this theory petroleum was formed from biomass which got trapped under the layers of earth over the period of time. Three conditions to be true for the formation of crude oil reservoir are:

1. Hydrocarbon material buried deep enough to facilitate formation
2. A layer of porous and permeable reservoir rock
3. A layer acting as sealing cap to prevent movement of oil to surface

Petroleum Products

Crude oil is refined to obtain several other Petroleum products as given below:

- Asphalt
- Diesel fuel
- Fuel oils
- Gasoline
- Kerosene
- Liquefied petroleum gas(LPG)
- Lubricating oils
- Paraffin wax
- Tar
- Petrochemicals

Uses of Petroleum

In one or another form petroleum has been used since ancient times. Asphalt was use to construct walls and towers of Babylon, more than 4000 years ago. Today 90% of vehicular fuel being used is oil. 64.6% of total power generated in India use petroleum products i.e. coal, gas, and oil. Petroleum products have become a part of our routine. From cooking gas to petroleum gel the petroleum products are used directly or indirectly.

Year	LPG	MS	ATF	SKO	HSD	LDO	FO/ LSHS	Bitumen	Lubes	All Products	Unit
2001-02	28999	46589	20259	13310	60248	1553	9921	6510	809	188198	Metric Tonnes
2002-03	29982	54305	27894	13706	53899	2744	8608	4680	776	196594	Metric Tonnes
2003-04	30603	57541	23487	13250	59154	1399	9564	7573	917	203488	Metric Tonnes
2004-05	30867	67149	24170	12249	67901	622	18025	4911	1646	227540	Metric Tonnes
2005-06	30574	71643	25119	12110	74223	575	18046	6644	1501	240435	Metric Tonnes
2006-07	32568	76148	24562	10941	82924	493	10901	8711	1376	248120	Metric Tonnes
2007-08	35098	84989	27595	10203	91742	401	11494	3923	1360	266805	Metric Tonnes
2008-09	35400	73800	37500	9400	69500	275	10432	4400	1250	241300	Metric Tonnes

Manager, HPCL, Chandigarh

Threats

Pollution! Pollution is major threat which is caused with every combustion of petroleum products. It doesn't matter if you use it or misuse it, greater you use more you pollute. Recently in Jaipur, Rajasthan oil depot of Indian Oil had caught fire resulting into estimated loss of 1800 crore (source wiki) of physical property and environmental loss is yet to be assessed.

Alternatives

- Use and not misuse: Remember that lesser you pollute equals saving.
- Use renewable source of energy: Sun, wind etc. The example is solar water heating system.
- Socialize habits: Make a pool of people driving to common place.
- Encourage research: Biomass fuel is yet to gain popularity, encourage it! E.g. bio-gas plant.
- Nuclear fuel: it may itself be troublesome but yet better in comparison.
- Presently 32.4% of power is generated from renewable sources of energy. Inquire more about it and contribute by using energy saving tactics like installation of CFL instead incandescent light bulb.
- Cut! Cut the habits leading to wastage of any kind. Every consumable use petroleum products directly or indirectly i.e. during manufacturing or for manufacturing.
- Energy Audits: Look for energy audit by self or agency for better use and contribution.




Consumption of Superior Kerosene Oil in Chandigarh

Year	Allocation	Upliftment	Unit
2001-02	14710	13310	Metric Tonnes
2002-03	14089	13673	Metric Tonnes
2003-04	13228	13082	Metric Tonnes
2004-05	13069	11706	Metric Tonnes
2005-06	13068	12110	Metric Tonnes
2006-07	13068	10478	Metric Tonnes
2007-08	13068	8911	Metric Tonnes
2008-09	9992	8968	Metric Tonnes

Manager, HPCL, Chandigarh

According to various estimations, sources of oil are explored to its total half by now and we have only 50 more years' stock available at current rate of use. With rise in demand supply would fall and price would increase, destabilizing the economy worldwide. It is high time to act and seek alternatives. India is taking steps to cut CO_2 emission and finding alternatives of conventional fuels. Chandigarh Administration has setup number of solar lights and solar water heating systems. Administration encourages the residents to contribute in global movement of cutting the wastage and misuse of any of the commodity.

Dear Information Seeker,

ENVIS CENTRE, Chandigarh furnishes you with the services to collect and disseminate information related to environment of Chandigarh. To share information with us you are requested to fill up the form given below.

Your feedback is valuable to us and will be highly appreciated

- Name _____
- Designation _____
- Department _____
- Address _____

_____ City _____

- State _____ Country _____ Pin |_|_|_|_|_|_|
- Phone _____ Fax _____
- Email _____

Your views on scope of improvement :

- Interest Area _____

I would like to have information on following :

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At the End of...

ENVIS CENTRE, CHANDIGARH
NewsLetter
Paryavaran-Patra

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What You Can Do?

- Keep record of use of energy in house and try to cut the misuse.
- Set a role model before the children by setting example of self.
- Ask everybody to discuss about alternative sources of energy.
- Participate and encourage others to take up awareness campaigns.
- Prefer walk over ride of vehicles.
- Use public transportation and discourse use of private vehicles.
- Install alternative sources of energy like solar water heater system.
- Keep updates from authentic sources dealing with alternative energy.

Hydrogen Fuel

Hydrogen (H_2) can be used as source of energy known as Hydrogen Fuel. Such fuel can be produced biologically as well as chemically. Study and technology of using Hydrogen Fuel is relatively new and evolving rapidly.

Biological Production

A process, gasification or pyrolysis, can be used to produce Hydrogen Fuel from biological sources like agricultural and forestry residues, consumer waste, and other specific agricultural crops converting the sources into combustible gas. During late 1990's it was discovered that algae if deprived of sulfur produce hydrogen instead of oxygen. Research is going on in the field.

Chemical Production

Most of chemical production requires electrolysis of water. The process may draw power from renewable sources of energy like wind turbines or photovoltaic cells, if is the case, the fuel produced is renewable fuel.

When consumed pure Hydrogen gas, it combines chemically with oxygen to form water H_2O and release a lot of heat. There is no chemical by-product and hence Hydrogen becomes a cleaner fuel.

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To,

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