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| C:\Users\COMPAQ\AppData\Local\Microsoft\Windows\Temporary Internet Files\Low\Content.IE5\D2JVGCH3\aigetoa[2].jpg | **ALL INDIA GRADUATE ENGINEERS & TELECOM OFFICERS ASSOCIATION**  **TAMILNADU TELECOM CIRCLE**  **(An Association of DR Graduate Engineers/Account Officers of BSNL)**  **Website:** [**www.aigetoachq.org**](http://www.aigetoachq.org)  **Email: aigetoatncircle@gmail.com** |

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| **Circle President**  H. Victor Samson  9443100770 |  |  | **Circle Secretary**  G. Saravana Kumar  9443200450 |

Ref No: AIGETOATN/Circle Office/5 dated: 27th March 2014

To

The Chief General Manager,

Tamilnadu Circle,

Bharat Sanchar Nigam Limited,

Chennai – 600 006.

**Sub:- Free Cooling System** **for BTS Sites using Turbo air ventilator - Reg**

Ref:- DO No.CGM/TNC/OF/2014/II March 17, 2014

Sir,

As per the reference cited above, vide point no.8 instruction regarding installation of free cooling system in BTS Site to reduce the recurring expenditure in electricity by removing AC units. In this regard, we propose to consider free cooling system with roof turbo air ventilator for GSM BTS shelter Site.

The **existing free Cooling Unit for BTS Shelters in Tamilnadu Circle** is having an axial cooling fan operated in 48V D.C Voltage. The BTS temperature vide BSNL C.O. letter no 3-2-1/EW /AC – 1/2007 dated 08.02.10 has now been revised to maximum of 30°C with RH of 60%. Thus the free cooling system in a normal mode shall operate whenever the ambient temperature is ≤ 27°C and through a logical controller which will switch off the Air - conditioners. DC operated fans of the free cooling system will provide the necessary ventilation/cooling in BTS. Whenever the shelter temperature reaches 32°C, the first AC unit is on and whenever it reaches 34°C the 2nd AC unit becomes on through the AC controller. The free cooling system also operates in case of emergency due to AC Failure or by any other reason leading to the persistent high temperature of more than 40°C inside the BTS. The main drawback of existing free Cooling Unit for BTS Shelters is D.C fan does not run during power failure along with Battery Set failure results in high BTS shelter temperature.

**The free cooling system with roof turbo air ventilator system** is totally different from the conventional method of exhausts with motorized exhaust fans. Roof turbo air ventilator is operated by utilizing the velocity energy of wind to induce airflow by centrifugal action. The centrifugal force caused by the spinning vanes creates a region of low-pressure area, which draws air out through the turbine exhaust. Air drawn out by the turbine exhaust is continuously replaced by fresh air from the outside. This free cooling system with roof turbo air ventilator has advantages of **no operating cost, runs on wind energy, assured 24 x 7 ventilation, 80% depreciation under section 32 of IT Act,** etc. More over some of the Infra providers are moving towards this type of free cooling system with roof turbo air ventilator for Shelter Sites as a green telecom initiative for heat transfer results in reduced energy consumption and carbon emissions.

The free cooling system with roof turbo air ventilator for GSM BTS shelter Site has been installed in **various SSAs of Rajasthan Telecom Circle** and the latest Notice inviting tender for Pali SSA for free cooling system with roof turbo air ventilator for GSM BTS shelter sites vide **NIT No. : 56/EE(E)/BSNL/ED/JDP/2013-14 dated 20.03.2014** is attached for kind perusal.

It is, therefore, requested to consider free cooling system with roof turbo air ventilator for BTS Shelters which is having no maintenance cost and also a step ahead to take initiative towards Green Telecom.

Thanking You,

Yours sincerely,

**Sd/..**

**Circle Secretary**

**AIGETOA TN Circle**

Copy to:

1. Chief Engineer (Electrical), Tamilnadu Circle
2. CHQ President/General Secretary/Joint Secretary (South) for information please.

Enclosure:

Notice inviting tender for Pali SSA, Rajasthan Telecom Circle for free cooling system with roof turbo air ventilator for GSM BTS shelter sites NIT No. : 56/EE(E)/BSNL/ED/JDP/2013-14 dated 20.03.2014