M/s NSL SUGARS (TUNGABHADRA) LTD

Location	**Deshanur Village, Siruguppa (Tk), Bellary – Dist, Karnataka.**
Nearest Railway station	Bellary : 60 Kms ; Adoni : 40 kms.
Nearest Airport	Belgaum : 340 Kms; Hyderabad : 320 kms; Hubli : 300 kms
Nearby towns	Siruguppa : 6 kms; Bellary : 60 kms; Sindhanur : 25 kms
Salient features of the plant **Land Area in acres**	❖ NSL Sugars group has acquired this plant during the year 2006 and continued its operation in the same season 2006
	❖ Plant is of 40 years old with initial crushing capacity of 1500 MT/day. To increase the production capacity and to increase the efficiency of plant NSL Sugars (Tungabhadra) Ltd, has undergone expansion of Sugar plant to 3500 MT/day during the season 2010
	❖ Also commissioned 28 MW Co
	❖ It gives a direct employment to around 500 employees and also indirect employment for several people in and around Siruguppa.
	❖ It aids panchayat school of Deshanur village for the up-liftment of backward area.
	❖ It provides residential quarters to its employees.
Sugar Plant	
Capacity	1500 TCD expanded to 3500 TCD
Year of Establishment	1973, Expended in 2011
Supplier Name	Original design Bukau-Wolf, Expansion by Fc-KCP , Chennai
Specification of Sugar Plant	a. 36”x78” Size Mill Max four mill tandem with AC drive,
	b. 1820HL SRT Clarifier,
	c. One set of quintuple effect evaporator of HS 6110M², CVP for A,B&C massecuite Boiling.
	d. SEDL condensing system with spray pond.
	e. 1550 cont centrifugals for B&C and 1250Kg/charge ‘A’ centrifugals.
	f. 25T/hr FBD & 25T/hr -2Nos Mogensen sizers,
	g. Total Molasses storage tanks – 3 Nos (14000 M3)
	h. Sugar ETP of 1000cum/day.
Innovative Technology	a. Installation of latest technology Mill Max two mill roller for effective Mill performance.

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Adopted	b. Installation of Inline shredder for effective preparation
Steam economic measures adopted	c. Installation of waste heat recovery system to sulphur burner to stop the consumption of 9ata steam.
	d. Usage of 3 ata steam to super heater wash water system instead of 9 ata steam.
	e. Usage of waste heat condensate recovery system to heat raw juice.
	f. Usage of Vapour line juice heater to heat raw juice.
	g. Usage DCH for Sulphured juice heating and clear juice heating to save steam.
	h. Usage of III body vapour for B & C Continuous pan boiling and II Vapour for A-Continuous pan and Batch pan boiling.
	i. Usage of Continuous pans for A,B & C pan boiling to reduce steam consumption
Cogen Plant	
Capacity	28 MW
Year of Establishment	2011
Supplier Name	a. Boiler : Fc-KCP
	b. Turbo Generator : BHEL
	c. DCS : Yokogawa
	d. Fuel & Ash Handling System : M/s Methods (India) Pvt Limited
	e. Cooling Tower : M/s. Hamon Shriram Cottrell Pvt. Ltd
	f. Water Treatment Plant : Ion Exchange
	g. Piping and appurtenances & fire Fighting: Samay Projects
	h. M/s Sathiapal Engineers (India) Limited
Specification of Boiler & STG	a. Boiler – 110 Ata, 540 ° C, 110 TPH ;
	b. STG - 28 MW BHEL make double extraction cum condensing Turbine, Speed- 5650 RPM, Type – EHNK-40/60 - 3
Energy conservation	**A. Sugar Plant:**

measures adopted	a. The mill drives, cane carrier, Juice pumps are provided with variable frequency drives which reduces the power consumption / ton of cane crushing.
	b. The 'A'C/F machines are provided with DC drives which gives higher output with low power consumption.
	c. Adopted DCS system for optimizing the process system and achieving the energy conservation.
	B. Cogen Plant:
	a. All the electrical motors are provided with variable frequency drives which reduce the auxiliary power consumption to 7.0 % during off season mode and 8.5% during season mode
	b. Adopted DCS system for optimizing the process system and achieving the energy conservation.
Water conservation measures adopted	a. Rejects of Ultra filtration, Reverse Osmosis & Back wash waters of Multi-grade filters are utilized in the sugar unit to reduce fresh water consumption
	b. The excess condensate is being treated in the condensate polishing unit and treated condensate is utilized to cooling tower make up to minimize the consumption of fresh water.
	c. No fresh water usage for the sugar factory thus by reducing the additional waste water generation as well as fresh water consumption.
	d. A well designed rain water harvesting measure is adopted.
Environment Management	a. High efficiency ESP with 3 fields is connected with 83 mtrs height of RCC Chimney in Cogen Boiler for better air pollution control.
	b. The DG sets are provided with acoustic enclosures to mitigate the noise pollution.
	c. The sugar trade effluent is being treated in the existing 1000 KLD capacity of Sugar ETP which consists of Bar Screen Chamber, Oil & Grease, Equalization cum Neutralization tanks, Buffer tank, UASB, Diffused Aeration tank, Clarifier, Sludge Drying Beds. The treated effluent is utilized for on land for irrigation.
	d. The Green belt development is developed as per CPCB guidelines in consultation with the local DFO to mitigate the fugitive emission effects.

	e. In order to conserve the raw water consumption, 1000 KLD capacity of Sugar Condensate Polishing unit is under erection
Awards	Received **"Highest Recovery Award"** from SISSTA for the season 2008-09 in 'Karnataka region – Medium recovery zone'.
Facilities available at site	Primary School, School bus, Residential Colony, Dormitory with Canteen, Dispensary with Medical officer, Male nurse, Ambulance etc
Key Customers	**Sugar** : Metro Cash and carry, Reliance retail, ITC, Britannia etc.
Future plan	Sugar will be expanded to 5000 TCD and the Distillery plant will be installed with a capacity of 60 KLPD.