

PUNJAB STATE TRANSMISSION CORPORATION LIMITED Regd. Office: PSEB Head Office, The Mall, Patiala-147001

NEWSLETTER

2nd Issue: April 2014

Inside

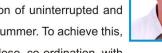
- Quarterly Progress of PSTCL
- Best Managed Grid Sub Station
- Best Managed Transmission Line
- Best Employee Awards
- Retirements

- Celebration of Republic Day, 2014
- Article-High Temp Low Sag Conductor
- IT Initiatives

- Inauguration of New Sub-Stations
- Glimpses of PSTCL

MESSAGE FROM CMD)

On the occasion of release of the 2nd issue of the Newsletter of PSTCL, I take this opportunity to call upon all our employees particularly those who are looking after the Protection and Maintenance works to remain vigilant for transmission of uninterrupted and quality power during coming summer. To achieve this, we have to work hard in close co-ordination with



PSPCL for a balanced load management. SLDC has to be more vigilant for

maintaining grid discipline during the summer season and ensure integrated operation of the power system.

My best wishes to all the members of the PSTCL family.



Anurag Agarwal, IAS.



Inauguration of 400 KV RING MAIN SYSTEM, by Hon'ble Dy.CM S.Sukhbir Singh Badal on 11-2-2014 at 400 KV Sub Station, Bhalwan (Dhuri)

New Appointment



Er. Shashi Prabha has joined as Director/Technical, PSTCL, Patiala on 20/02/2014 A.N. The whole PSTCL organization congratulated her and welcomed her on joining.

SAVE ELECTRICITY, SAVE MONEY

Quarterly Progress of PSTCL (Jan-March 2014)

Sr.no	Description		Up to 31.12.2013	Up to 31.3.2014	Net progress during the quarter
1	Sub- station ending the year				
Α	400 KV		02	03	01 nos.
В	220 KV		85	88	03 nos.
С	132 KV		78	77	1 no. S/s upgraded to 220 KV S/s
	Total		165	168	4 nos.
2.	Capacity (Transformers)				
Α	400 KV	MVA	1000	1630	630 MVA
В	220 KV	MVA	19465	20340	875 MVA
С	132 KV	MVA	6324	6349	25 MVA
D	66 KV	MVA	2533	2663	130 MVA
Е	33 KV	MVA	5	5	L
	Total	MVA	29327	30987	1660 MVA
3.	Transmission Lines (Ckt. Kms.) Erected				
Α	400 KV		1362.69	1530.47	167.78 Ckt.Kms.
В	220 KV		6002.952	6131.024	128.072 Ckt.Kms.
С	132 KV		3131.70	3131.70	
	Total		10497.342	10793.194	295.852 Ckt.Kms.

Best Managed Grid Sub-Station and Transmission Line

PSTCL decided to award Best Managed Grid Sub-Station and Transmission Line from this year. Five numbers Grid Sub-Station & five numbers Transmission Line were recommended by Screening Committee for selecting Best Managed Grid Sub-Station & Transmission Line:

Substations:

1. 220KV Sarna 2. 220 KV Mansa 3. 220 KV Dasuya

4. 220 KV Goraya 5. 220 KV Dhuri

Transmission Lines:

1. 220KV Khasa-Civil Line Amritsar 2. 220KV Lehra Mohabat-Bajakhana

3. 132KV Hoshiarpur- Chohal 4. 220KV Malerkotla-Pakhowal

5. 220KV Mohali-Rajpura

Best Managed Grid Sub Station Award 220 KV Sub Station Dasuya

Selection Committee, then selected the 220 KV Substation Dasuya as Best Managed Grid Sub-Station & 220KV Malerkotla-Pakhowal line as Best Managed Transmission Line & awarded them with Memento & cash award of Rs.15,000/- All the other four substations & transmission lines were awarded the Appreciation letter.

Brief 220 KV S/s Dasuya: The 220 KV S/s was commissioned on 9.2.1983 & 220 KV Dasuya- Pong and Dasuya- Jalandhar Circuits were put in operation from this substation. This grid is well maintained with the cooperation and continued hard

Best Employee Award

Following were honoured as the Best Employee by the Management of PSTCL and were awarded with Memento:

with Memento:

Name of officer/official
Er. Manmohan Singh
Er. Munish Bhardwaj
Sh. Sumit Bansal
Er. Ashok Kumar Yadav
Smt. Hem Lata
Sh. Shyam Sunder Kalia
Er. Kanwaljit Singh
Er. Jagjeet Singh
CA. Rajesh Bansal
Sh. Brijesh Sharma
Sh. Paramjit Singh
Sh. Rumel Singh
Sh. Rumel Singh Designation Sr.Xen/PC Addl. SE AO/Budget AEE Supdtt/Grade Supdt. AAE AAE SAS Acctt. LDC Lineman ALM ALM

RETIREMENTS PSCTL Wishes All the Following a Good Luck and Healthy Life.

- Er. R.K. Sharma retired as EIC on 31.1.2014
- Er. Kuldip Singh retired as AEE on 28.2.2014
- Er. Tarlochan Singh retired as AEE on 28.2.2014
- Er. Sukhdev Singh retired as Sr.Xen on 31.3.2014

work of the officers and staff of S/s. The Yard is properly maintained by Fencing and proper gravel has been spread in the area. To increase the beauty of S/s, the flowers pots were kept in the corridors and plantation is done for keeping proper environment. The total land area of this S/s is around 99 acres and all the surrounding area is covered with trees for maintaining climatic conditions. There is one 100 MVA, 220/66 KV transformer.



Best Managed Transmission Line Award 220 KV Malerkotla-Pakhowal Line

Celebration of Republic Day 26th Jan. 2014

The Republic Day i.e. 26 Jan, 2014 was celebrated with great enthusiasm by PSTCL. Dir/F&C Sh. U.K.Panda was the Chief Guest of the flag hoisting ceremony and Dir/Admin. Sh. Niraj Hit Abhilashi Tayal was the Guest of Honour. This was followed by a cultural programme.



"Truth" is like surgery, It hurts but it cures and "Lie" is like a pain killer, it give relief but has its side effects later

Iron is very strong metal but it becomes weak when it is hot. So always stay cool and happy in any situation. You will always be strong in life.

Happy is the person who knows: What to forget of the past, What to enjoy in the present and what to plan for in the future

CA S.K. Beri, CAO

High Temperature Low Sag Conductors - An insight

With a steady and considerable increase in power requirement during the last few years many of the existing transmission lines are overloaded. Due to space/ROW constraints and growing resistance on part of land owner's, construction of new sub-stations and transmission lines is becoming more and more difficult with every passing day. It is the need of the hour to explore alternate solutions for over loaded, transmission lines which cannot be de-loaded by way of construction of new lines. One such solution, which is gaining popularity now a day is to replace the existing ACSR with equivalent size High Temperature Low Sag conductors, commonly, referred as HTLS. Many types of HTLS are available in the market and a few prominent ones are as follows:

- 1. Gap Type HTLS: These conductors were developed in Japan in late 1960s. The conductor consists of an extra high strength steel core surrounded by stranded layers of aluminum alloy. GTACSR use heat resistant aluminum alloy (TAI) and can with stand up to 150°C. It can carry 1.6 times higher current than ACSR of equivalent size. The sag at this temp. is 96% of ACSR sag (at 90°C). GZTACSR use super thermal resistant aluminum alloy (ZTAI) which can withstand up to 210°C and can carry two times higher current than ACSR of equivalent size. The sag at this temperature is 104% of ACSR sag (at 90°C).
- 2. Aluminum Conductor Composite Reinforced (ACCR): This conductor is a patented product of 3M Technologies of USA. The core of the conductor is stranded from wires of alumina fibers embedded with high purity aluminum. The outer current carrying wires are of hardened Aluminum Zirconium alloy. The resulting conductor has the same strength as similar sized ACSR but is much lighter and sags less. Operating temperature up to 210°C is common with emergency temperature going up to 240°C. The current carrying capacity is twice that of the similar sized ACSR Conductor.
- 3. Aluminum Conductor Steel Supported (ACSS): This conductor comprises of an inner core of steel wire coated with an alloy of zinc & aluminum. Annealed aluminum strands form the outer layer of the conductor. When stressed the aluminum elongates and transfers the entire load to the steel core. The conductor can operate up to 210°C and can achieve current carrying capacities in the range of 1.6-2 times that of similar ACSR.
- 4. Super Thermal Alloy Conductor Invar Reinforced (STACIR): The conductor comprises of an inner core of Aluminum clad Invar (36% Nickle in steel) and concentrically arranged Super Thermal Alloy (STAL). The STAL is manufactured from Aluminum Zirconium rods. Aluminum clad Invar has low thermal co-eff. of expansion even at 210°C which enables it to maintain sag equivalent to ACSR. It has more than twice the current carrying capacity as compared to equivalent ACSR. The only drawback is very high cost as compared to other products. The following are the major benefits of HTLS Conductors for re-conductring: a) Increased current carrying capacity, b) No minimum modification required on existing towers, c) Higher corrosion resistance, d) Lower Capex.

Er. Munish Bhardwaj Addl. SE, Transmission System (D)

IT Initiatives

IT Department has developed in house web based software "Store Management System" for computerization of all stores under PSTCL. The software has been uploaded on PSTCL website www.pstcl.org . This software helps the stores personnel to do various store related activities online which includes preparation of GRs, SRs, SRWs, Indent & Challan etc. and generation of various types of reports.

This software also enables the Management to view the stock position as well as value of various store items at the click of a button. The field officers can also view the availability of stock items online. This software will help PSTCL to have better inventory control & utilisation of resources.

IT department of PSTCL has also developed the following softwares in-house which are currently under trial run:

- 1 Financial Management Information System
- 2 Compilation of Accounts System
- 3 Court Cases Management Information System

S.E/IT

Following substations were inaugurated during Jan-Mar-2014

- 1. Inauguration of 400 KV Ring Main System, Bhalwan by hon'ble Dy. CM, S. Sukhbir Singh Badal on 11.2.2014
- 2. Inauguration of 220 KV Substation, Ghulal by S. Ajmer Singh Lakhowal, Chairman Punjab M. Board on 15-2-2014
- 3. Inauguration of 220 KV Substation, Chajli by Hon'ble Member, Rajya Sabha S. Sukhdev Singh Dhindsa on 20-2-2014
- 4. Inauguration of 220 KV Substation, Udhoke by Hon'ble Cabinet Minister, Punjab, S. Bikram Singh Majithia on 14-2-2014
- 5. Inauguration of 220 KV Substation, Bangan by Hon'ble Member, Rajya Sabha S. Sukhdev Singh Dhindsa on 20-2-2014
- 6. Inauguration of 220 KV Substation, Dhanaula by Hon'ble Member, Rajya Sabha S. Sukhdev Singh Dhindsa on 24-2-2014



Cultural Programme on the occasion of Republic Day 2014

Vision of an organization

Vision is a statement about what an organization wants to become. It makes members of the organization feel proud, excited, motivated, and part of something much bigger than themselves. The vision gives shape and direction to the organization's future.

Vision-what it means to us:

- Responding effectively to the events happening in & around it.
- Energetic at all the times to provide continuous quality supply.
- Continuously strategizing, monitoring & identifying the plans where alternate approach(s) are required and acting accordingly.
- Being responsive to any agency(ies) which interact(s) with it.
- Becoming an institution where all members are devoted and dedicated towards the success of the organization.

 It is the need of the hour to be consistent and for that emphasis

be laid on becoming more proficient and resourceful.

ਬੰਦਾ

Er. J.S Zafar Addl. SE/ Proc., P & M Ludhiana

ਮੈਂ ਸਮੁੰਦਰ ਵੱਲ ਵਗਦੇ ਦਰਿਆ ਨੂੰ ਪੁੱਛਿਆ ਕਿਵੇਂ ਵਗ ਲੈਂਦਾ ਹੈਂ ਲਗਾਤਾਰ? ਅੱਗੋਂ ਦਰਿਆ ਨੇ ਪੁੱਛਿਆ ਵਗਣਾ ਕੀ ਹੰਦਾ? ਦਰਿਆ ਨਾਲ ਤੁਰਦਿਆਂ ਸਮੰਦਰ ਕੋਲ ਪੱਜਿਆ

ਜੋ ਚੰਦ ਵੱਲ ਦੇਖ ਕੇ ਸੀ ਹੱਸ ਰਿਹਾ ਓਸ ਨੂੰ ਪੁੱਛਿਆ-ਏਨਾ ਗਹਿਰਾ ਕਿਵੇਂ ਹੋਇਆ?

ਸਮੁੰਦਰ ਕਹਿਣ ਲੱਗਾ ਗਹਿਰਾਈ ਕੀ ਹੁੰਦੀ?

ਫਿਰ ਮੈਂ ਚੰਦ ਨੂੰ ਪੁੱਛਿਆ-ਏਨਾ ਸ਼ਾਂਤ ਕਿਉਂ ਹੈਂ? ਚੰਦ ਨੇ ਹੈਰਾਨ ਹੋ ਪੁੱਛਿਆ-ਇਹ ਸ਼ਾਂਤੀ ਕੀ ਚੀਜ਼ ਹੋਈ?

ਰਾਤੀਂ ਮੇਰੇ ਸਪਨੇ 'ਚ ਦਰਿਆ ਸਮੁੰਦਰ ਤੇ ਚੰਦ ਆ ਕੇ ਕਹਿੰਦੇ-ਬੰਦਾ ਬਣ

ਮੈਥੋਂ ਪਰਤ ਕੇ ਪੁੱਛ ਨਹੀਂ ਹੁੰਦਾ-ਇਹ ਬੰਦਾ ਕੀ ਹੰਦਾ?

Success is to be measured not so much by the position that one has reached in life but by the obstacles which he has overcome.

S. Jasvir Singh, Company Secy.



TODAY'S WASTAGE IS TOMORROW'S SHORTAGE