

# **Project on Efficiency and Environmental Improvement for Sustainable, Stable & Low Carbon Supply of Electricity**

ANPARA THERMAL POWER PROJECT



# PRESENTATION ON

**“ Flexibilisation to be adopted”**

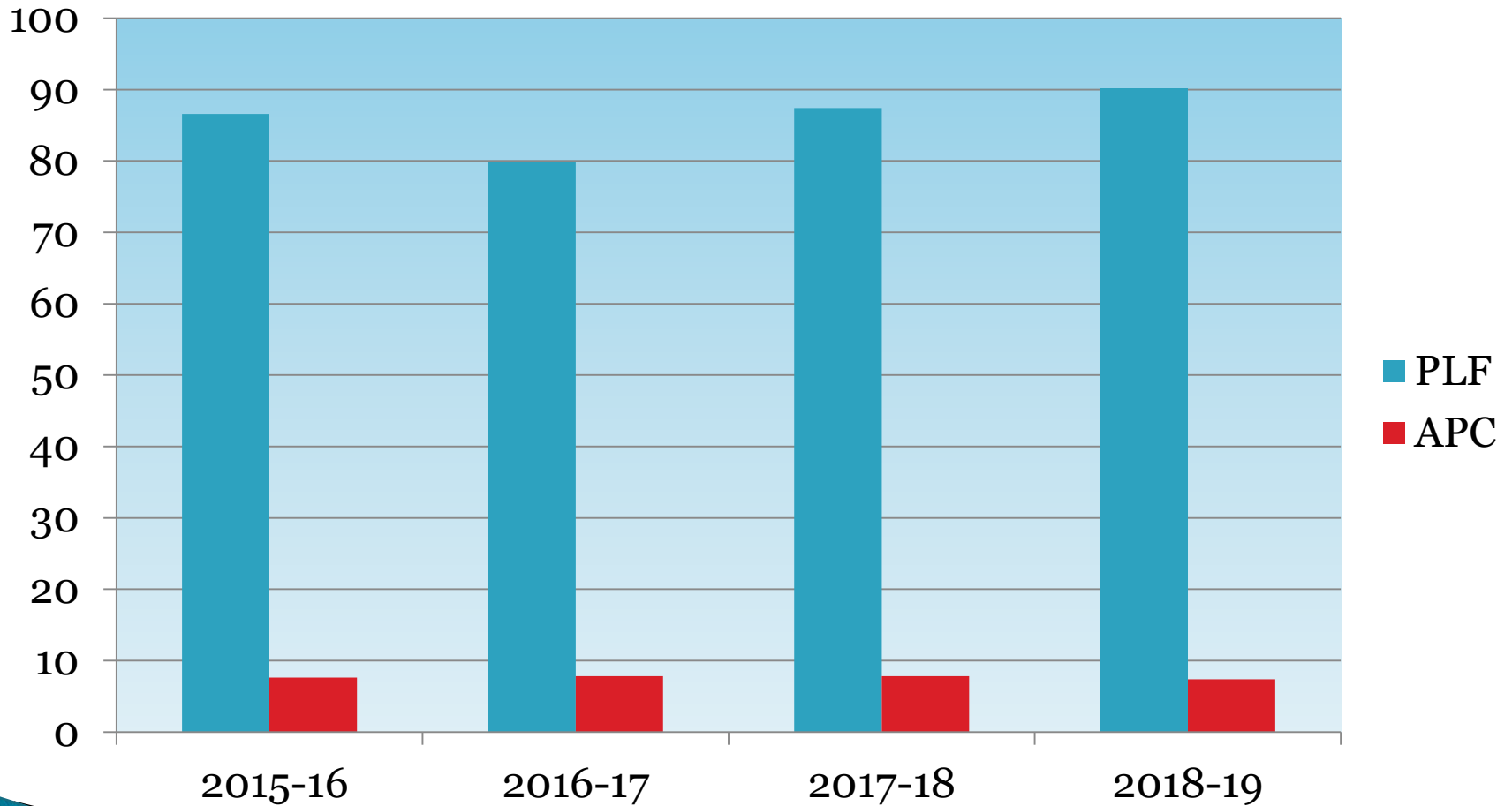
***ANPARA THERMAL POWER STATION  
SONEBHADRA(U.P.)***

**UPRVUNL**

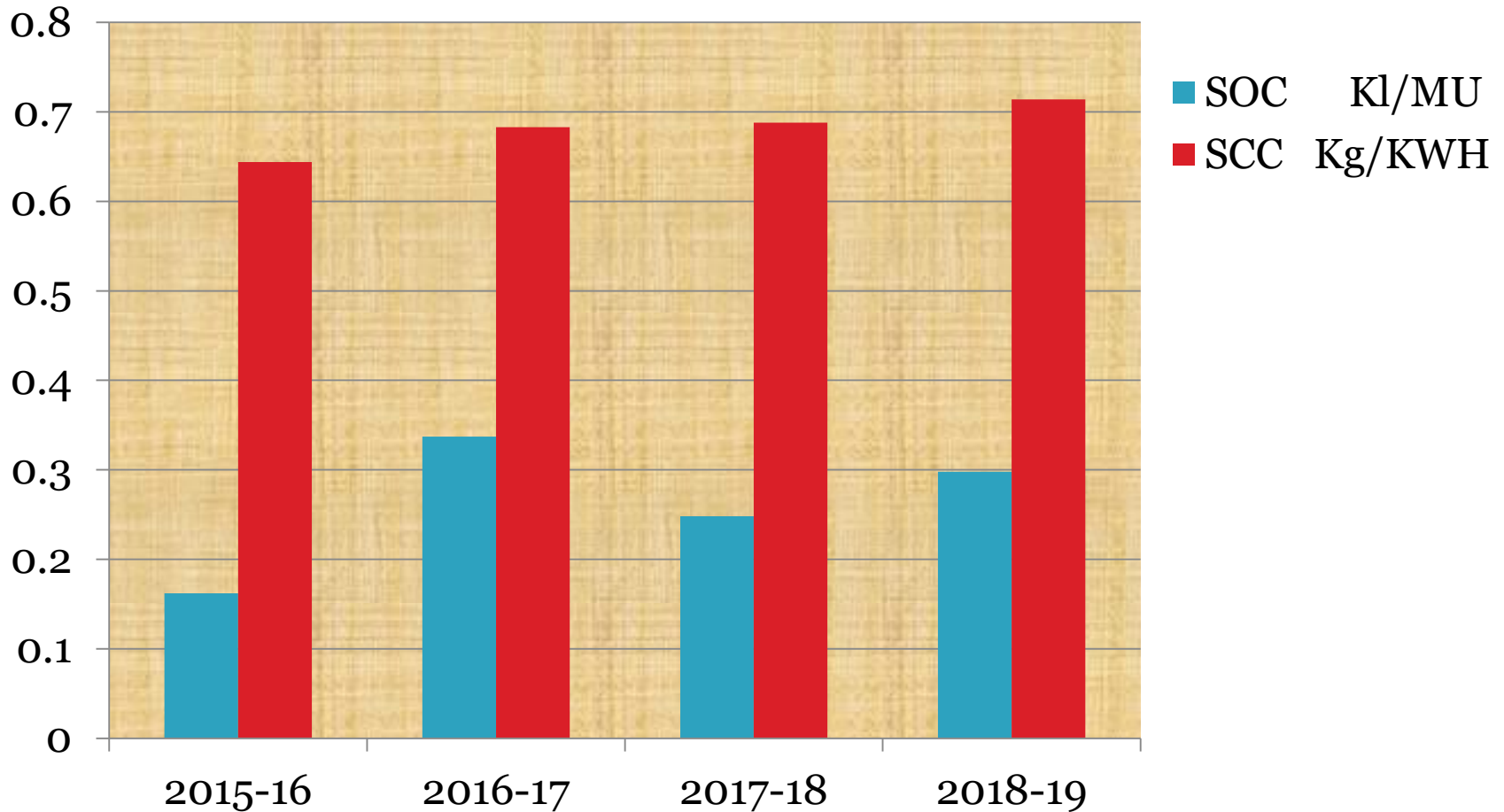
# Salient feature of last four years

- ▶ BTPS Anpara is commissioned in 1994 and it is in continuous operation till date. This station had a running history of more than 25 Years.
- ▶ The salient performance feature of last four year is as given below.
- ▶ PLF :- 86.58%,79.85%,87.39%,90.17%
- ▶ SOC:- 0.1621,0.337,0.248,0.298(KL/MU)
- ▶ Sp.Coal Cons.:- 0.644,0.683,0.688,0.714(kg/Kwh)
- ▶ APC :- 7.63,7.831,7.83,7.40(In %)

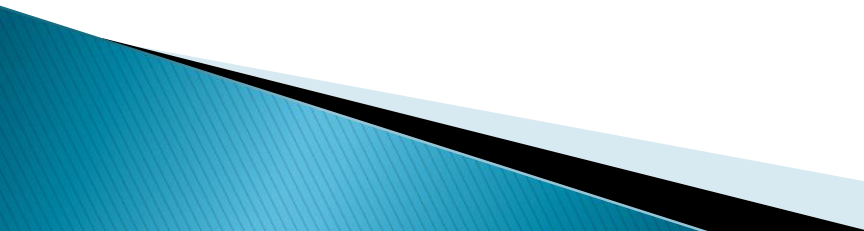
# PLF & APC of Last four Years



# Specific Oil Consumption & Specific Coal Consumption



# Constraints

- ▶ The point of attention at which focus is required during flexible operation of Units are as follows.
  - ▶ It is always advisable and technically suitable to run the Unit at its rated capacity.
  - ▶ Due to partial loading of machine the APC of Unit will be increase.
  - ▶ Sudden load UP & load down of Unit causes the mechanical & Thermal stress on the Equipments.
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# Operational Constraints

- ▶ In Electrical equipment & Auxiliaries due to frequent reversal of load the loss of insulation occurs this will also weaken the life of equipments.
- ▶ Many Aux. & equipments are taken in service or out of service during load variation.
- ▶ Such as change over of heater drain pump at 300 MW & TBFP to MBFP & at 280 MW and change over of Mills at different loads.

- ▶ At reduced load only 3 or 4 will be in service. If any one of this in service Mill will be tripped then there may be chances that Unit may trip on unstable fuel supply/Loss of all flame. that result in increase tripping and reduction in generation.
- ▶ Running of MBFP at low load will increase APC .
- ▶ Increase in APC will reflect in cost of electricity to end user.
- ▶ As per previous records of Unit the Unit is not running stable at 200 MW.



- ▶ Most important fact is that actual assessment of Unit will be required by consulting to OEM weather Unit is capable of running with sudden load rise & throw during change over.
  - ▶ As the Unit is 25 year old it is difficult to stick with commissioned ramp up & ramp down so latest ramp up & ramp down permissible limit recommendation is required from OEM.
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