

EFICIENTA ENERGETICA

ELECTRICITATE DIN “DESEU”

APA CALDA 80 C

- * Locatie: SC Sortilemn SA, Gherla (Jud. Cluj), Romania

Dragostin Catalin

Director, SC Energy-Serv SRL

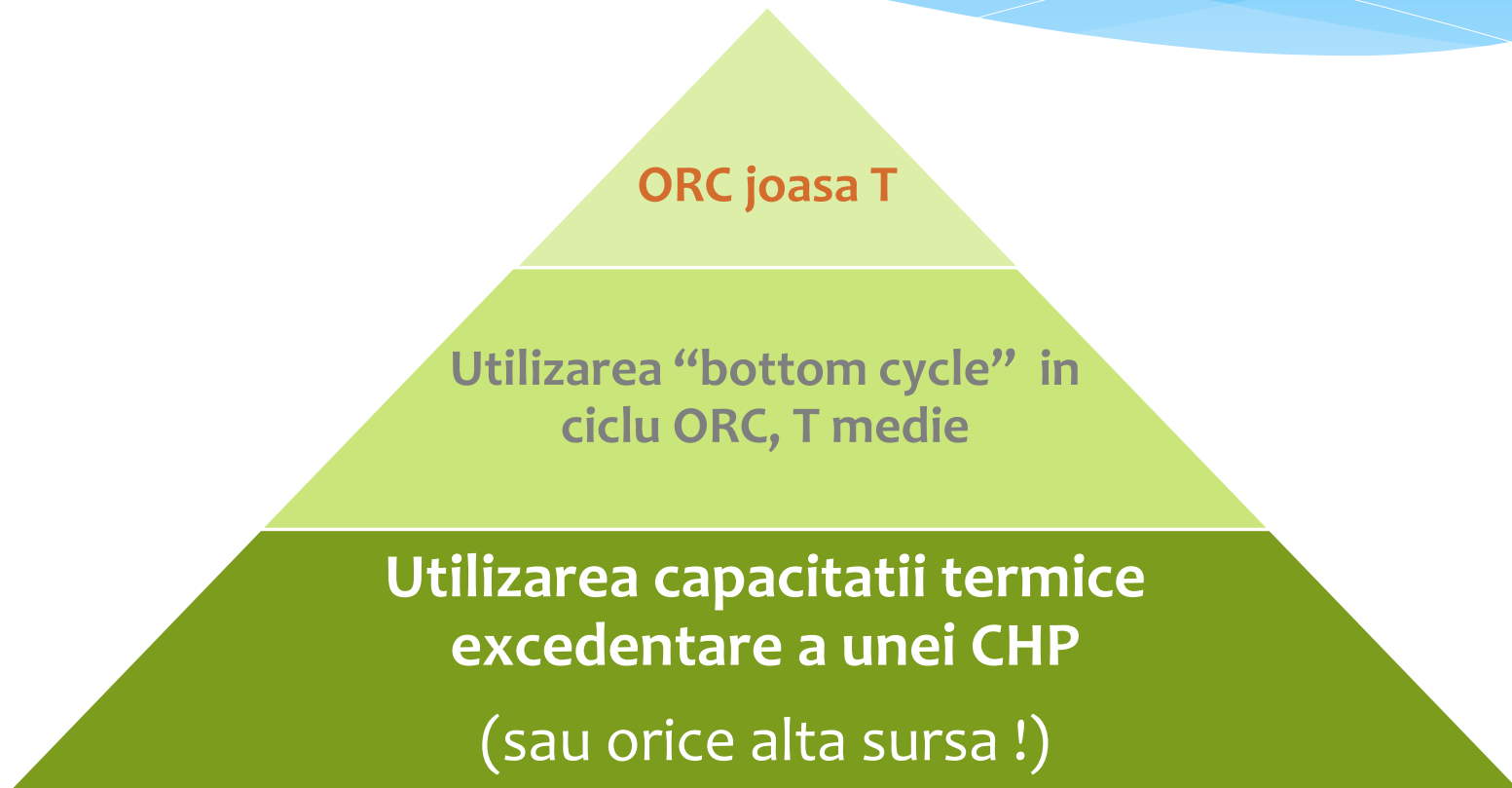


Presedinte, ESCOROM



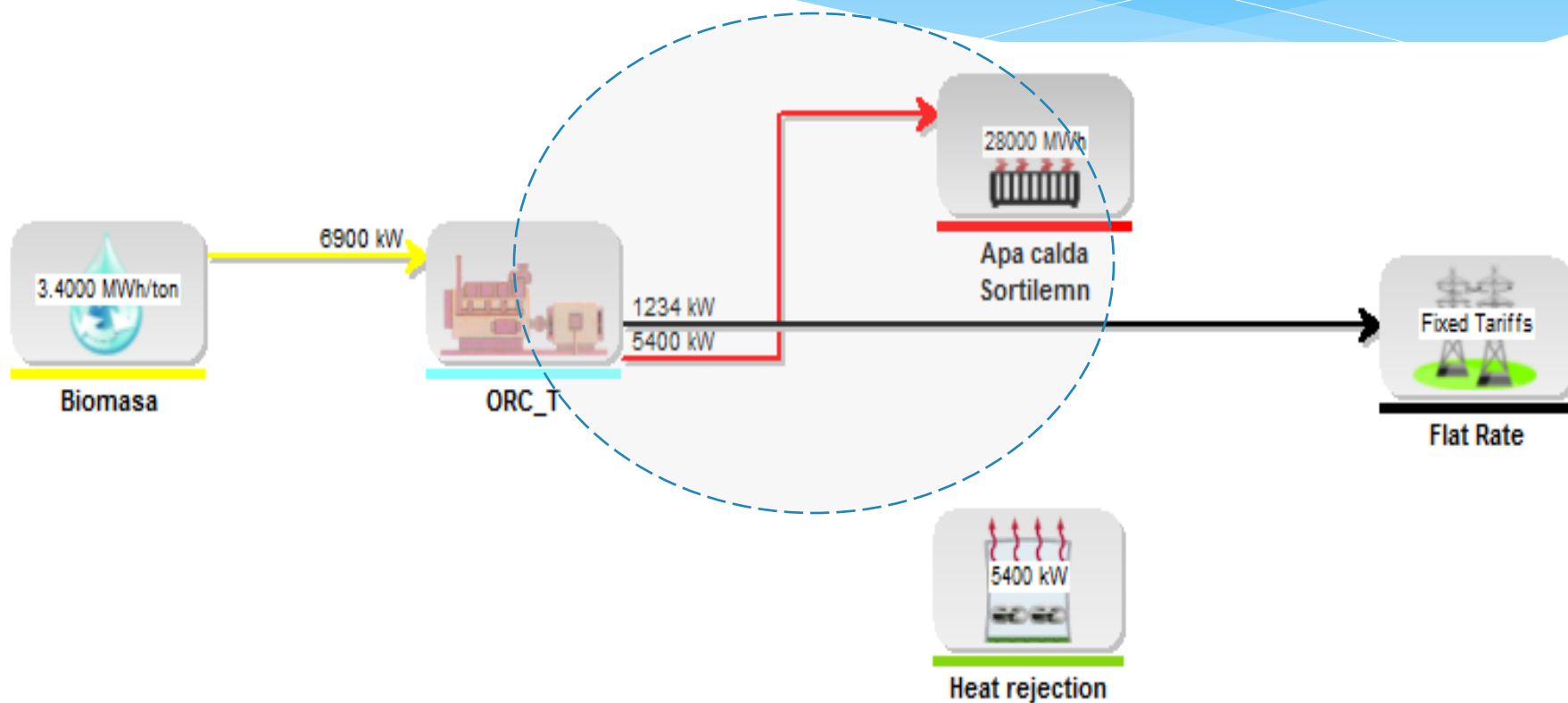
Romanian Energy Efficiency Forum 2016
October 13, 2016, HOTEL INTERCONTINENTAL, BUCHAREST

PRIMUL PROIECT DE ACEST TIP DIN ROMANIA (*Heat Recovery for Power Generation*)

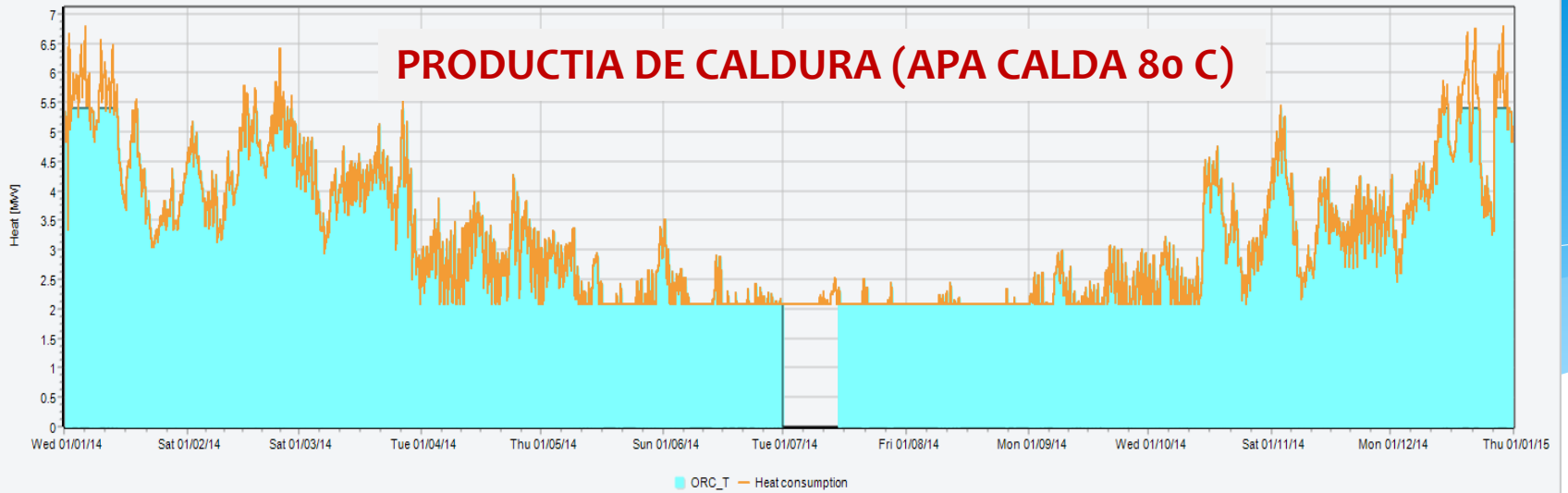


“SISTEMUL COGEN” AL SORTILEMN

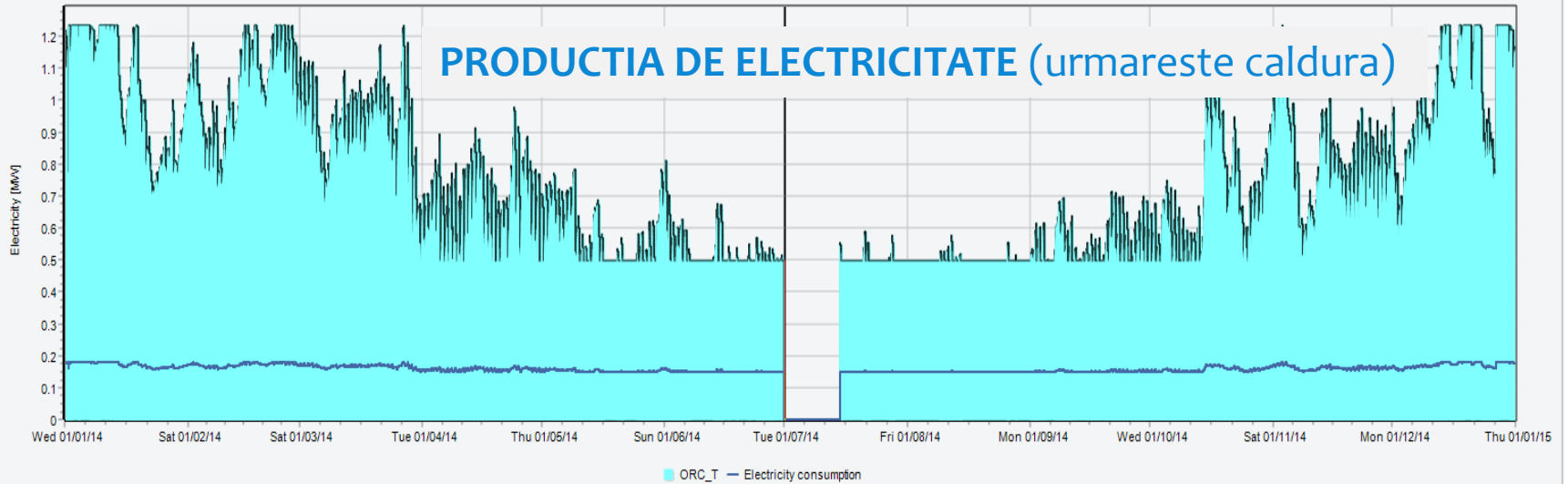
(cogen inalta eficienta pe biomasa - energie verde)



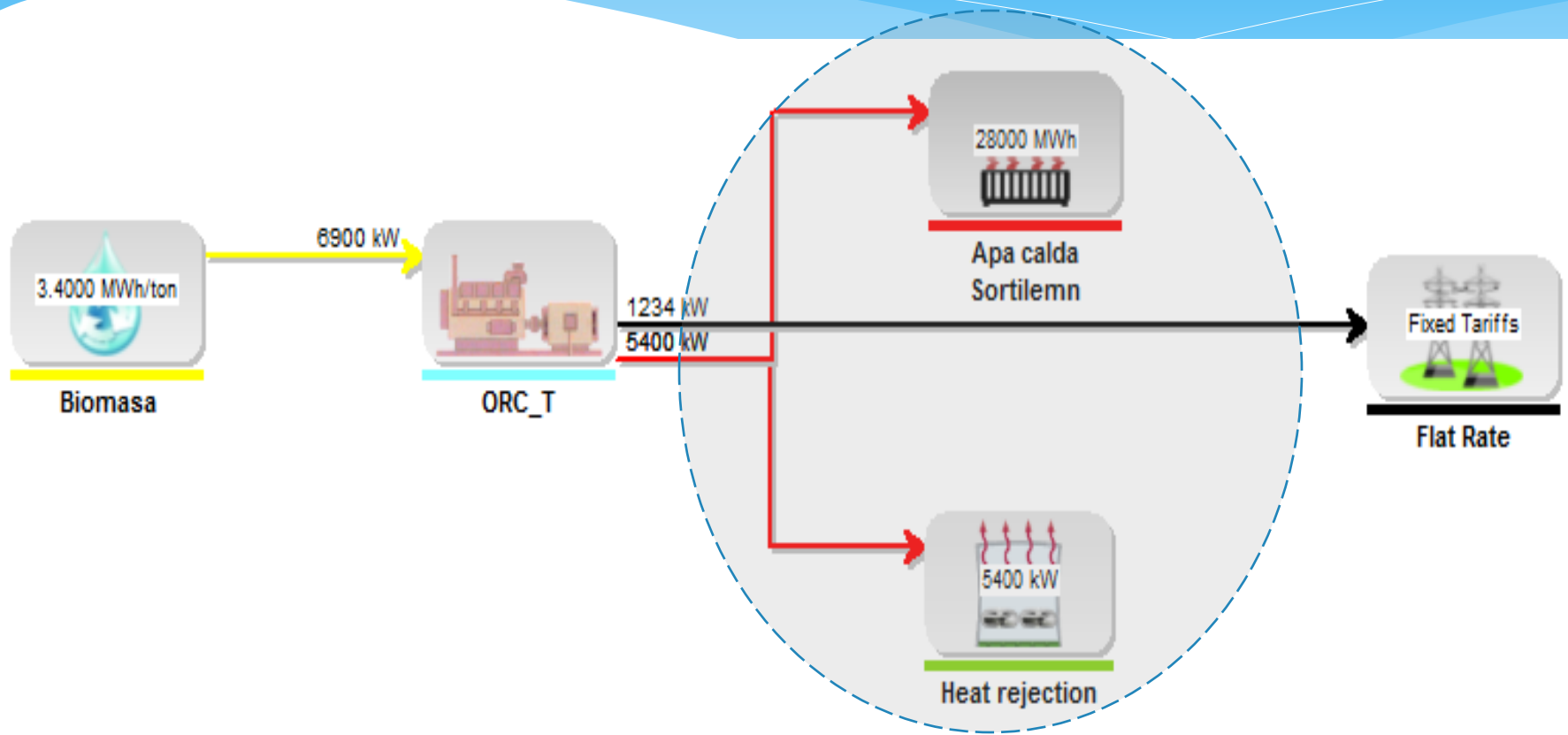
PRODUCTIA DE CALDURA (APA CALDA 80 C)



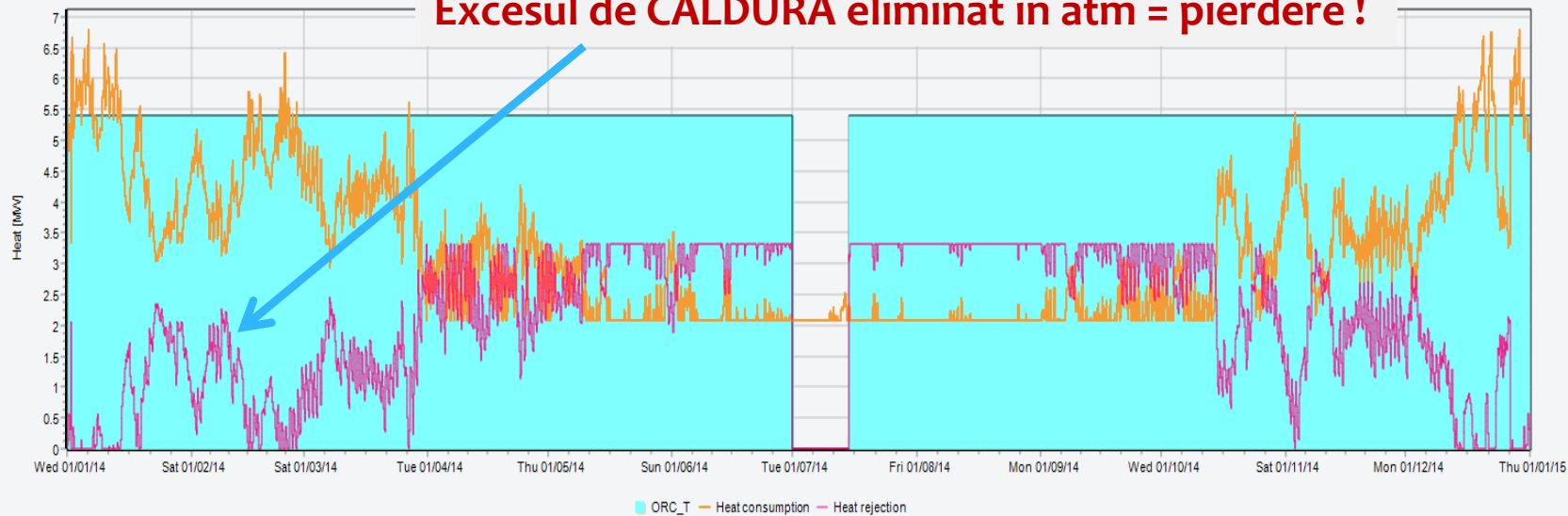
PRODUCTIA DE ELECTRICITATE (urmareste caldura)



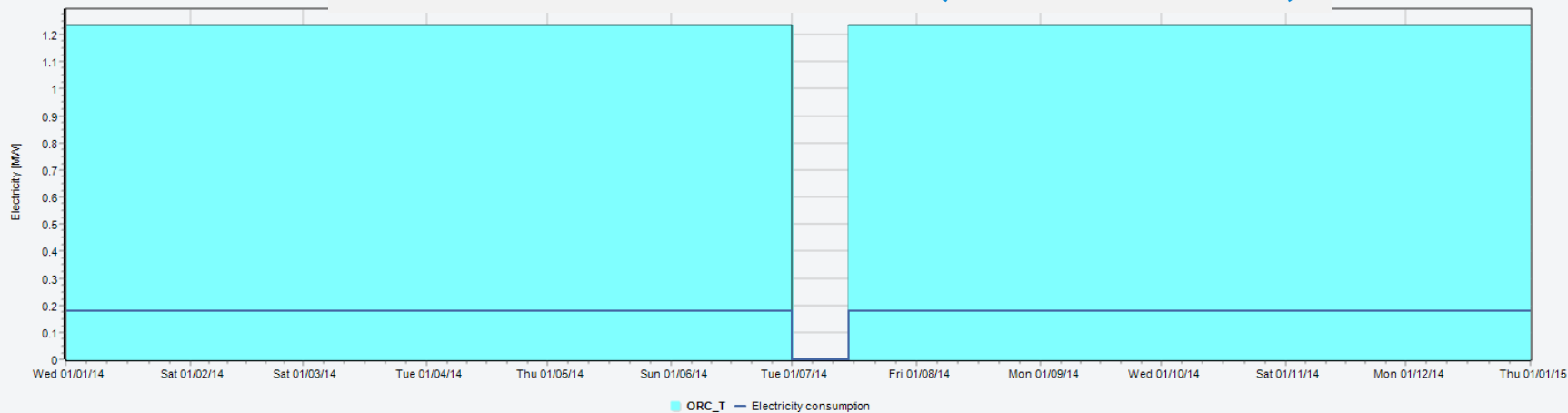
COGEN ACOPERA CONSUMUL DE CALDURA SI EXCESUL ESTE ELIMINAT IN ATMOSFERA



Excesul de CALDURA eliminat in atm = pierdere !

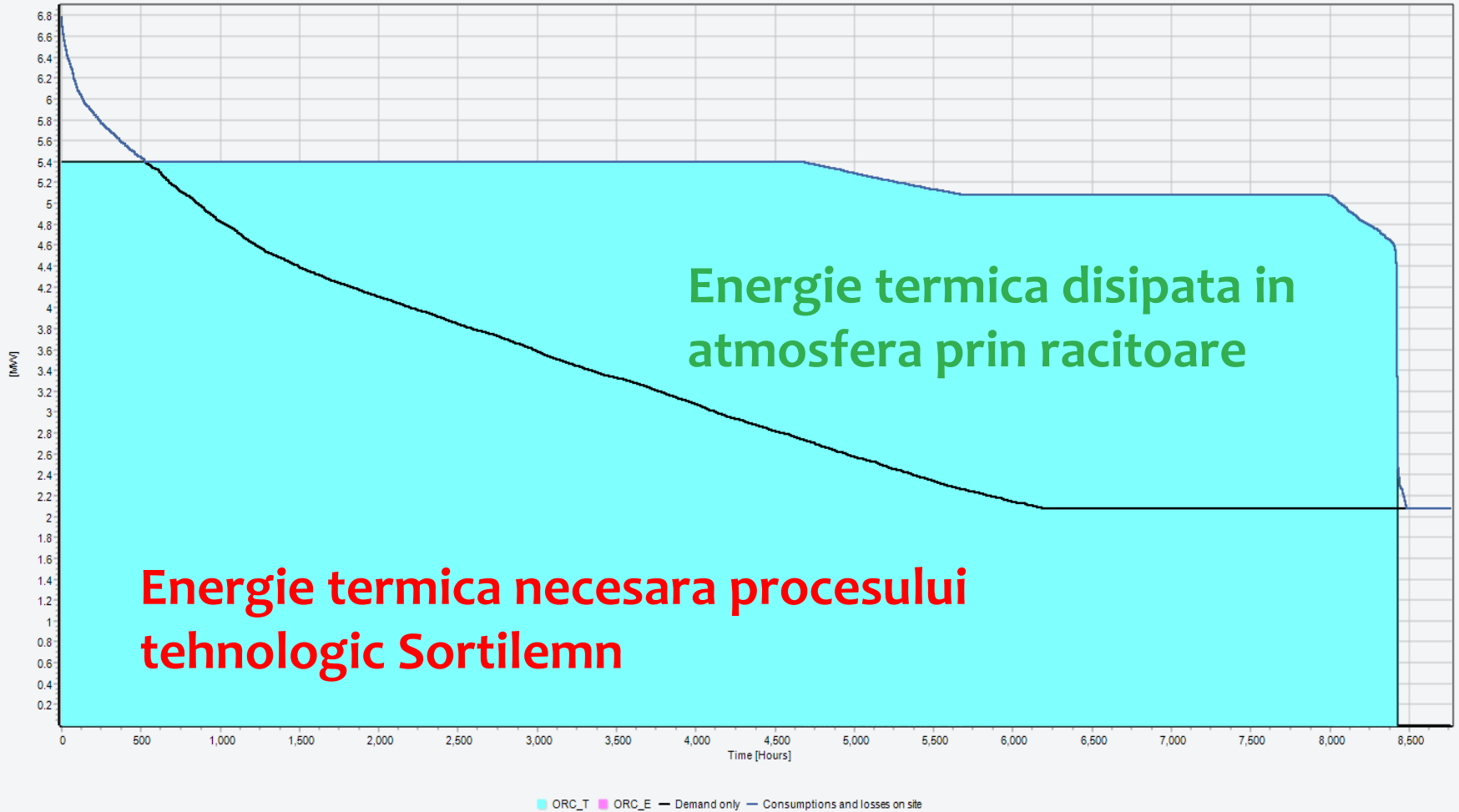


PRODUCTIA DE ELECTRICITATE (constant la maxim)

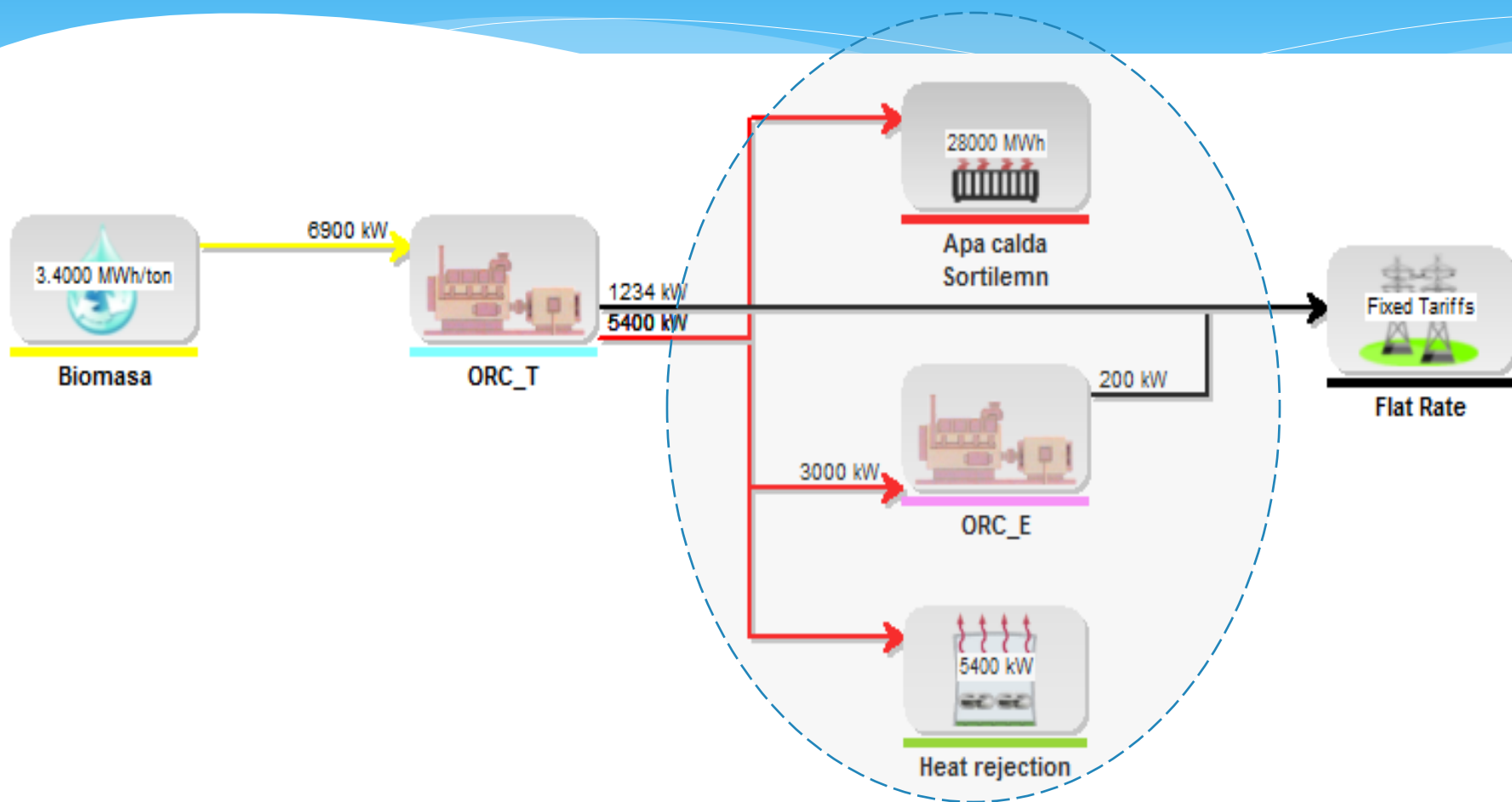


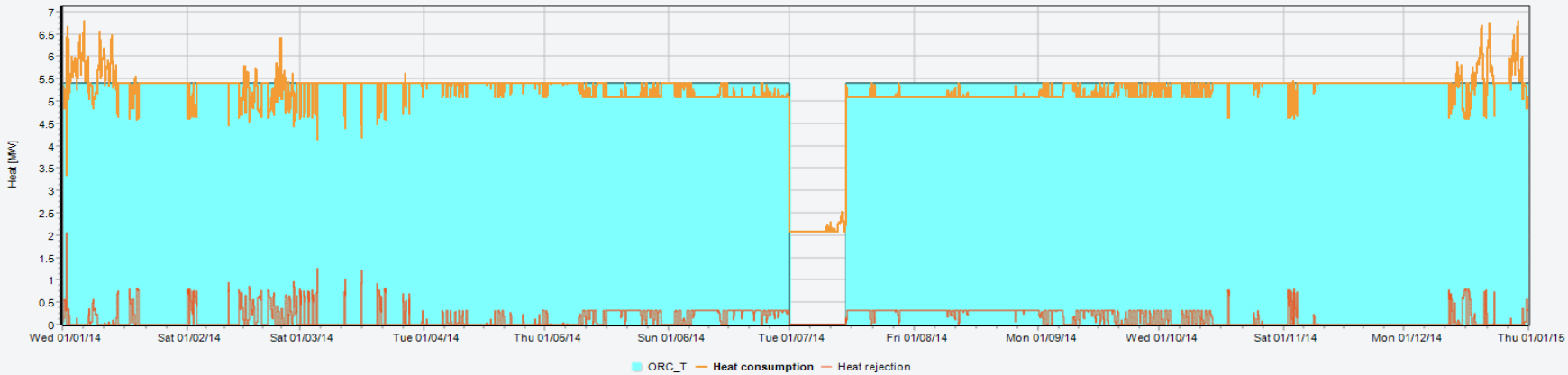
CURBA DE SARCINA TERMICA

Duration curve for heat demand
(Wednesday, January 01, 2014 to Thursday, January 01, 2015)

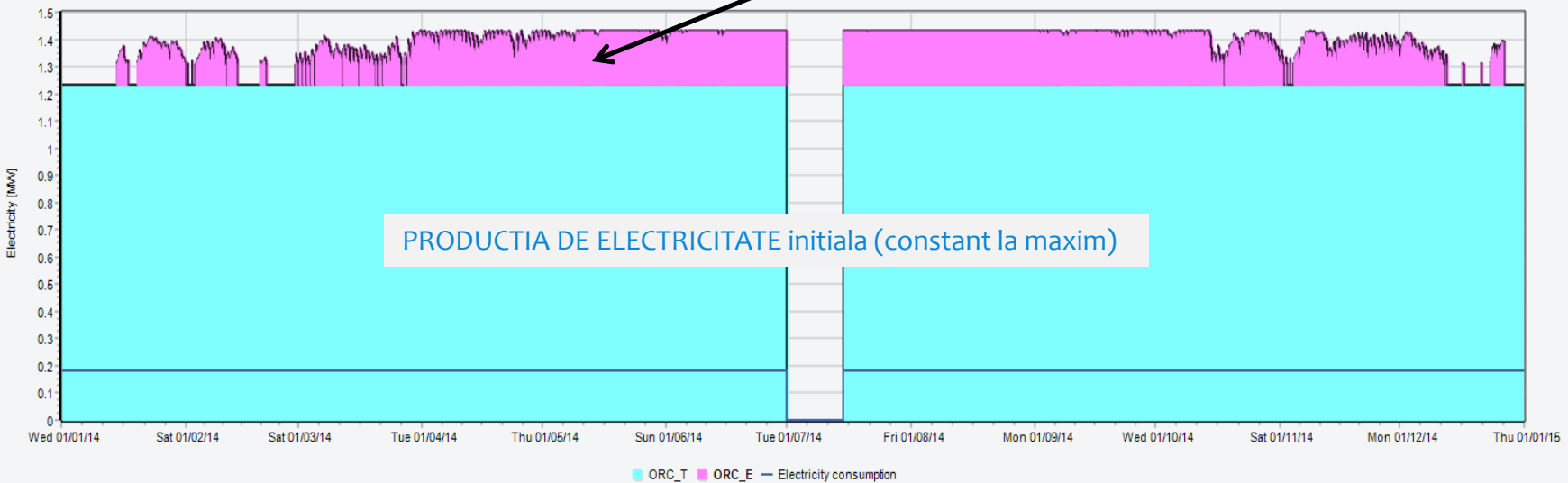


COGEN ACOPERA CONSUMUL DE CALDURA SI EXCESUL ESTE “CONSUMAT” PT. PRODUCTIE SUPLIMENTARA DE ELECTRICITATE in ORC DE JOASA TEMP.

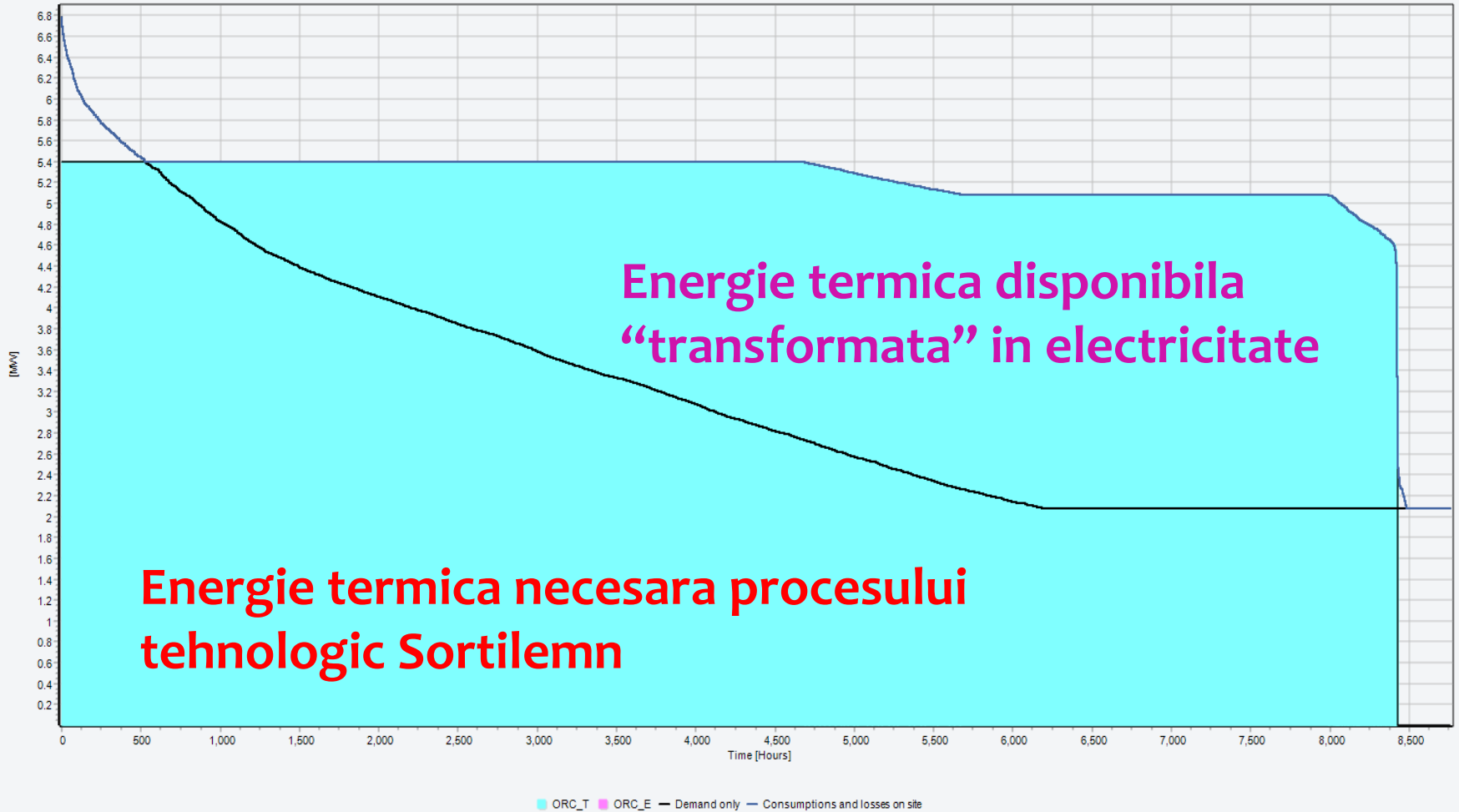




PRODUCTIA DE ELECTRICITATE SUPLIMENTARA



Duration curve for heat demand
(Wednesday, January 01, 2014 to Thursday, January 01, 2015)



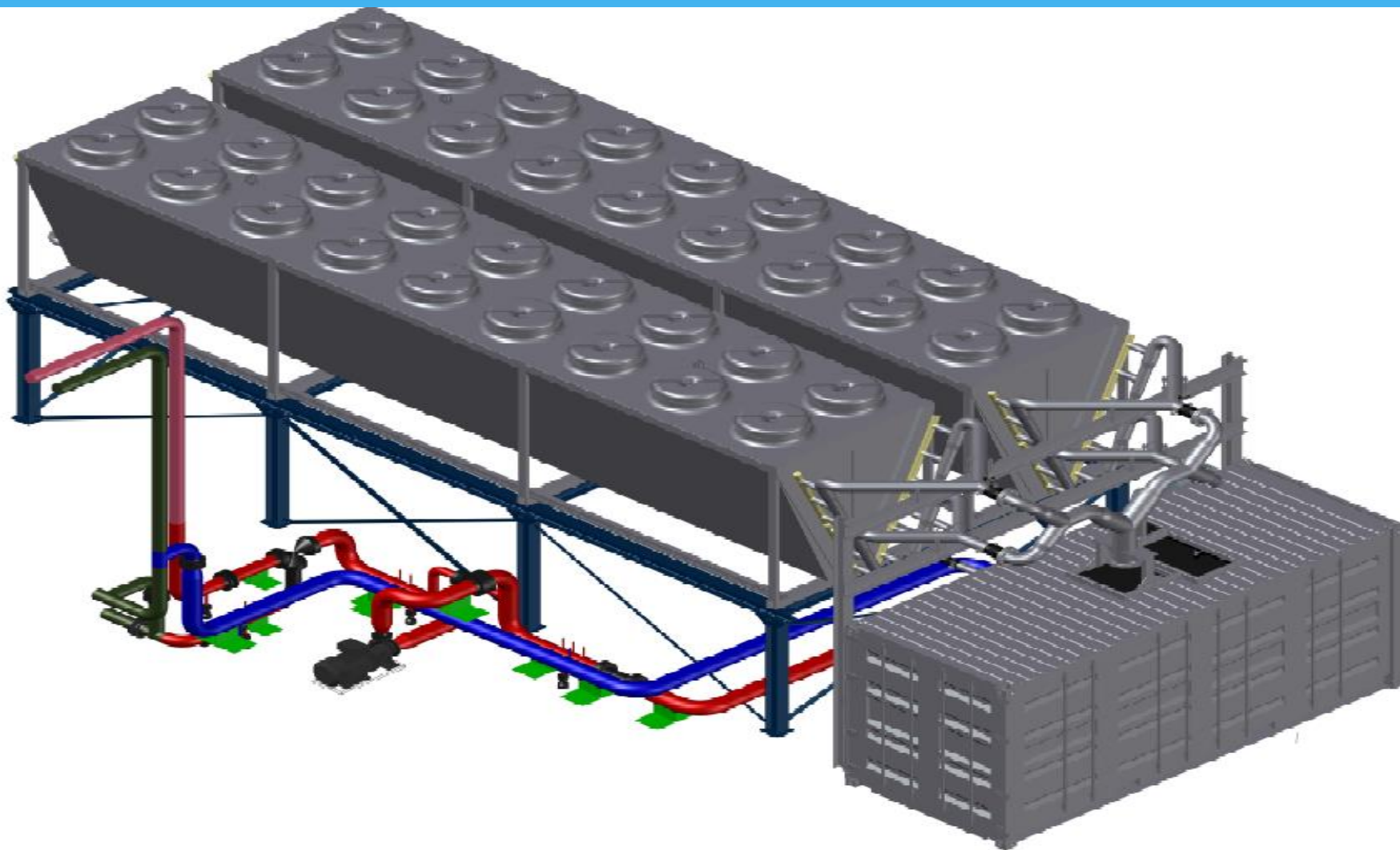
**Energie termica disponibila
“transformata” in electricitate**

**Energie termica necesara procesului
tehnologic Sortilemn**

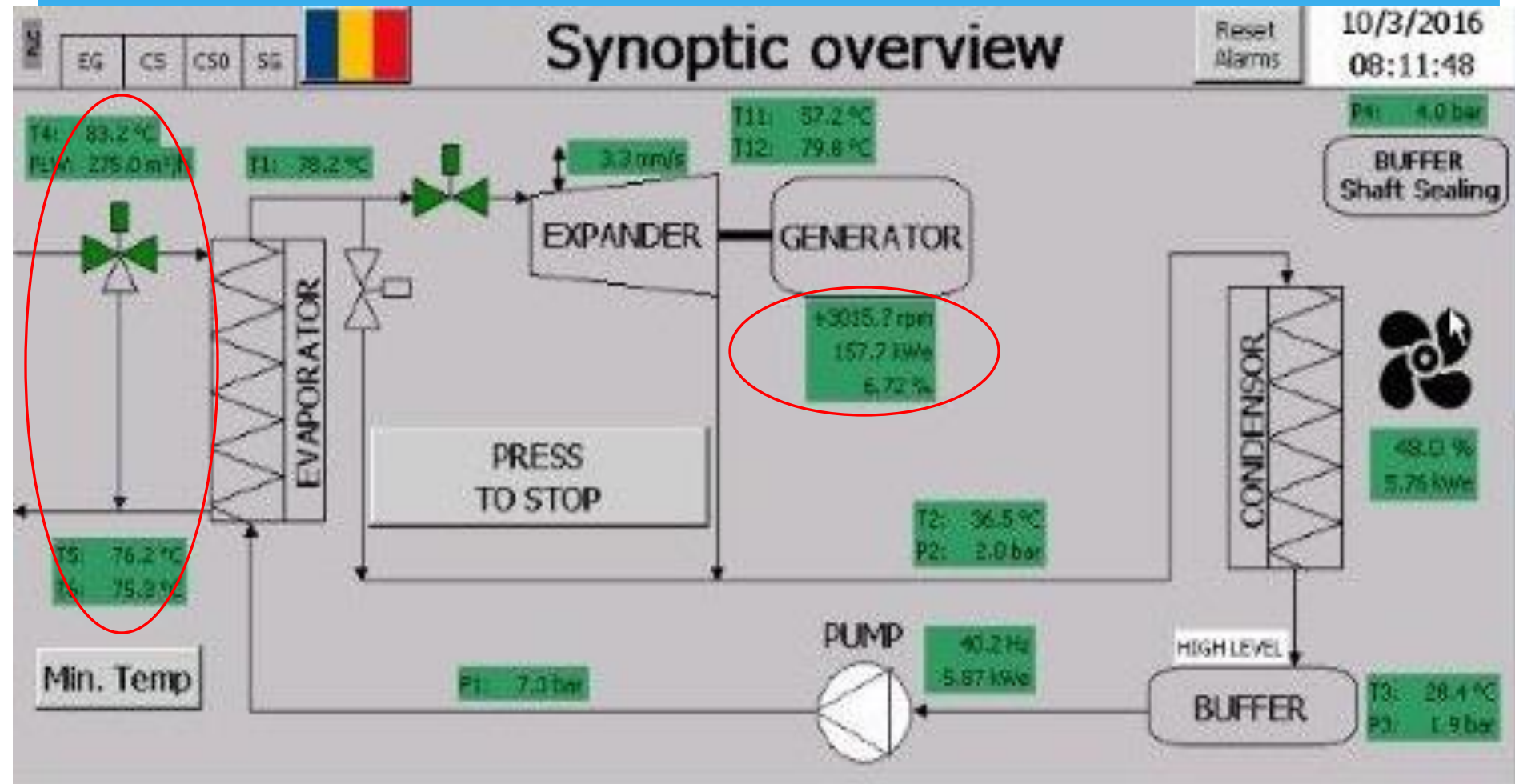
FOTO INVESTITIE



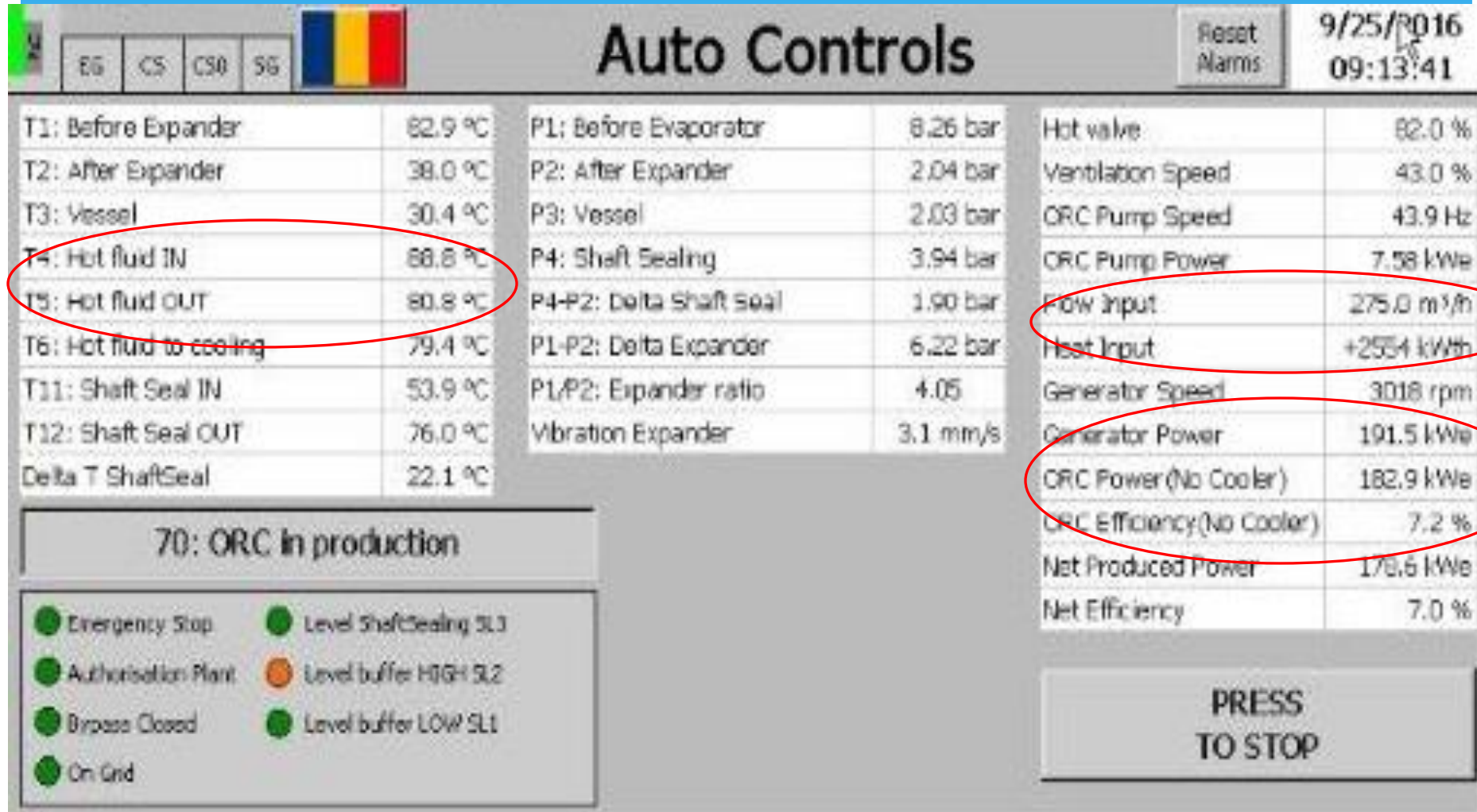
PROIECTUL 3-D AL INVESTITIEI



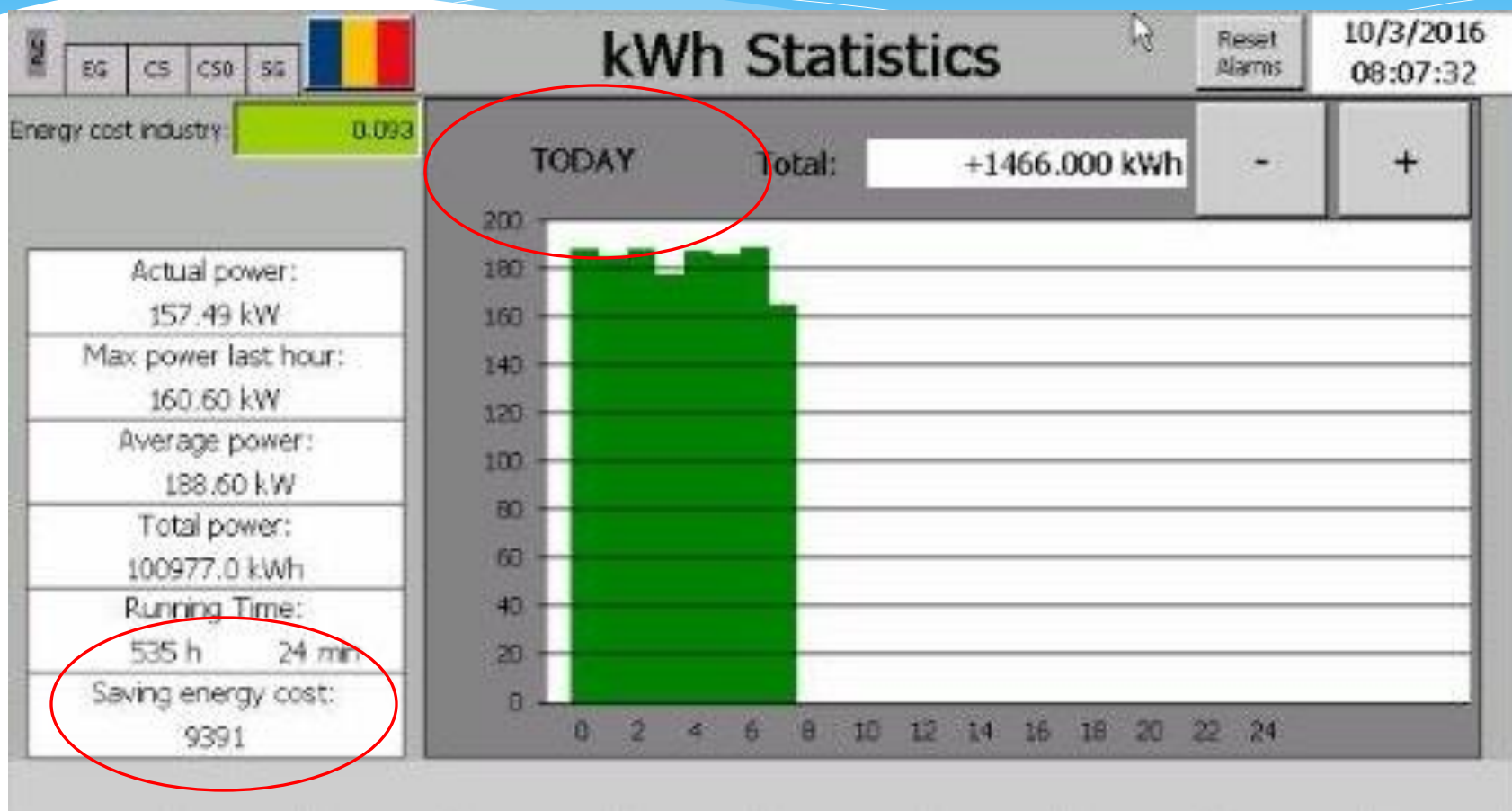
PROCESUL TEHNOLOGIC ORC



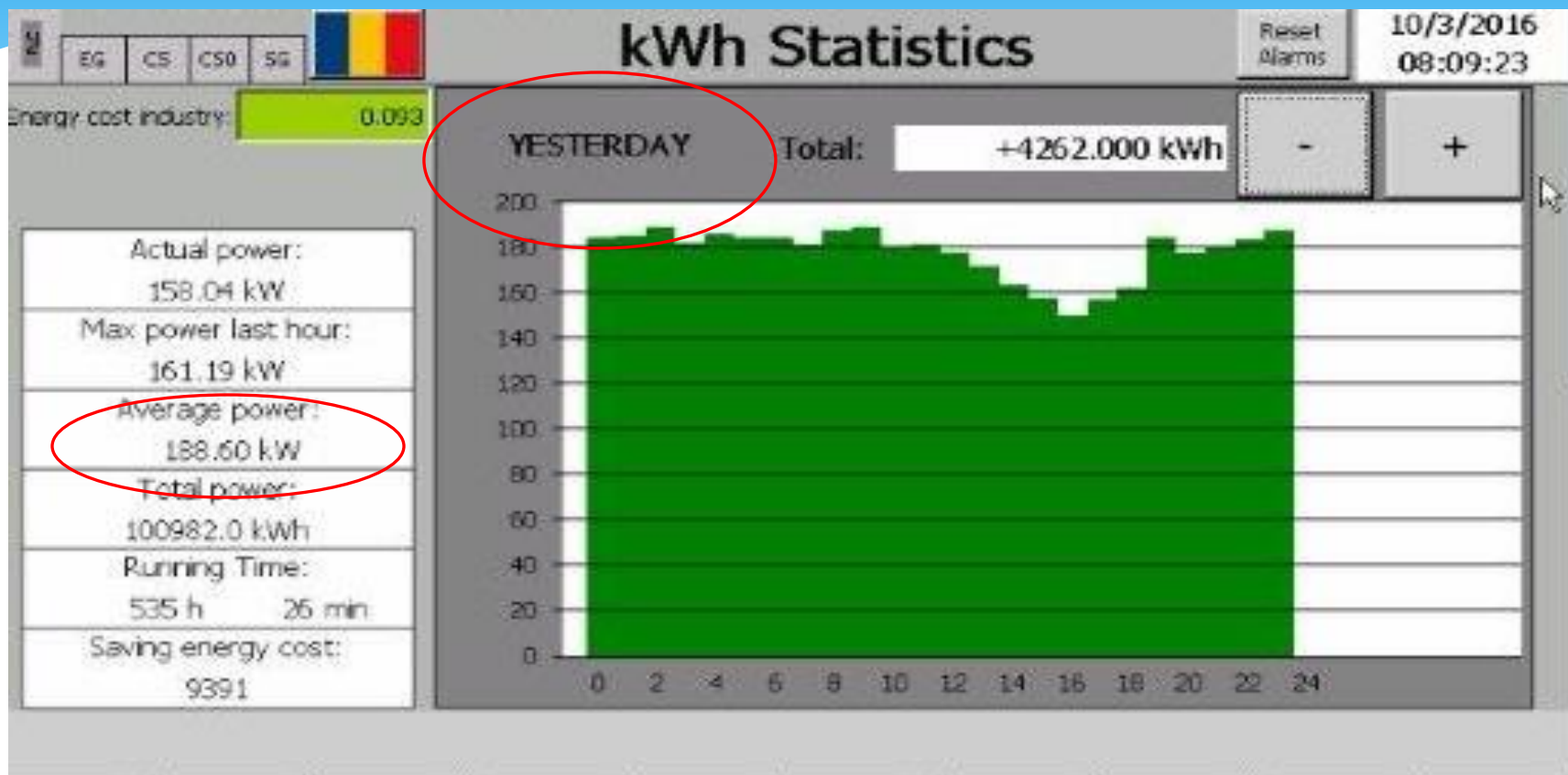
PARAMETRII PRINCIPALI (INPUT/OUTPUT)



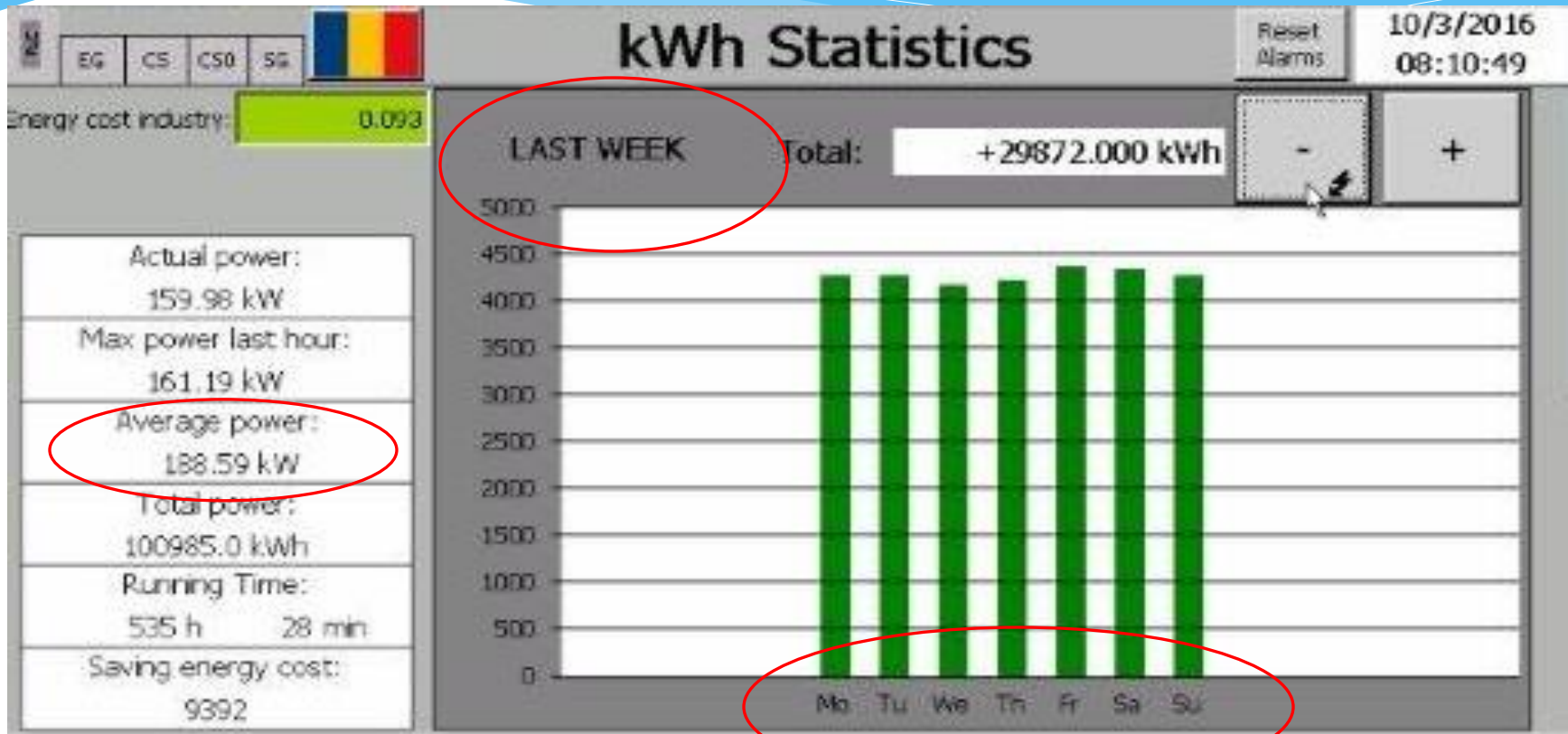
Productia de energie si economii realizate



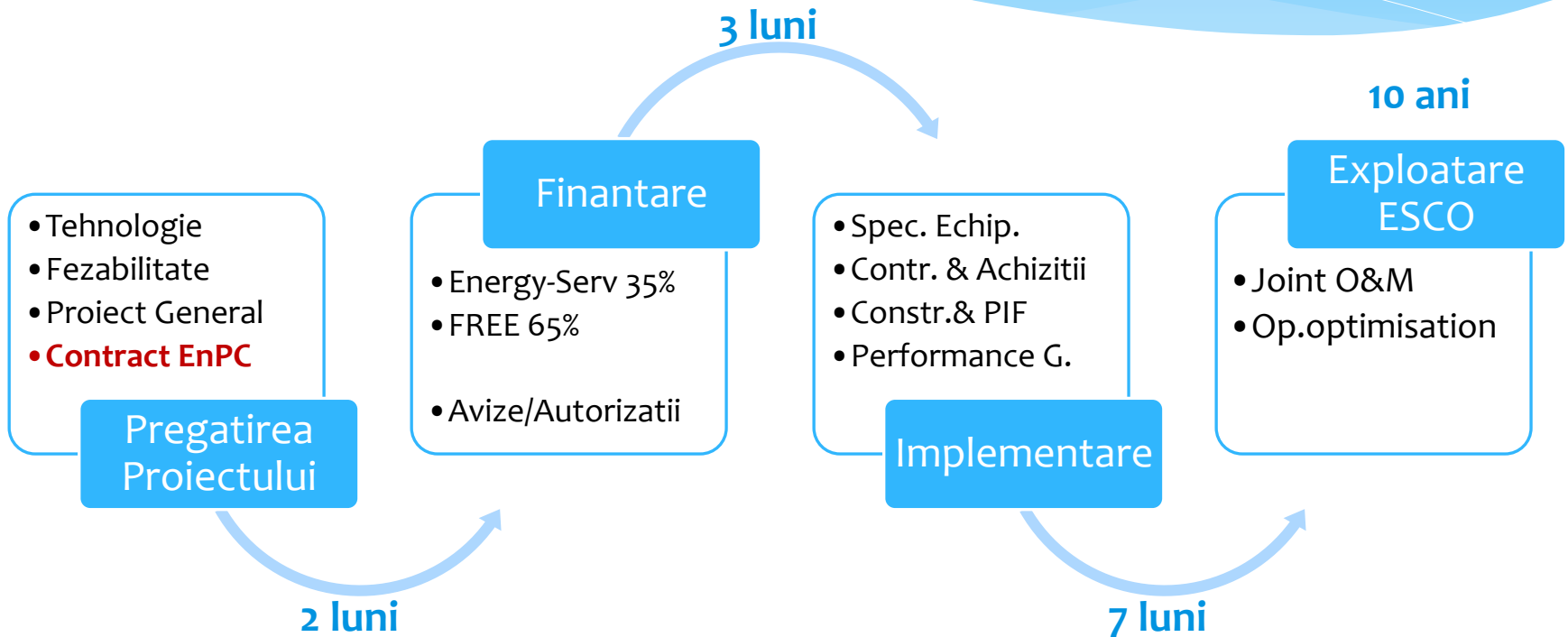
VARIATIA ZILNICA A PRODUCTIEI REALIZATE



VARIATIA SAPTAMINALA A PRODUCTIEI REALIZATE



CONTRACT ESCO / EnPC: ENERGY-SERV / SORTILEMN



MANAGEMENTUL PROIECTULUI

- * **Managementul a 10 Subcontractori (!)**, pentru parte electrica, conexiuni, automatica, mecanica, structuri, civile, echipamente auxiliare;
- * **Managementul aprobarilor si avizelor (inca 7 entitati !)** de la: Sortilemn, FREE, ANRE, Min.Mediului, Inspectoratul Constructii, Electrica, Primaria Locala, fiecare cu “agenda proprie”;
- * **CONCLUZIE RELEVANTA PENTRU PROIECTE DE EFICIENTA ENERGETICA:**
Efort si costuri disproportionale de management pentru 200 Kwe eficienta energetica (care nu este CNE Cernavoda !) si a carui implementare dureaza 12 luni !

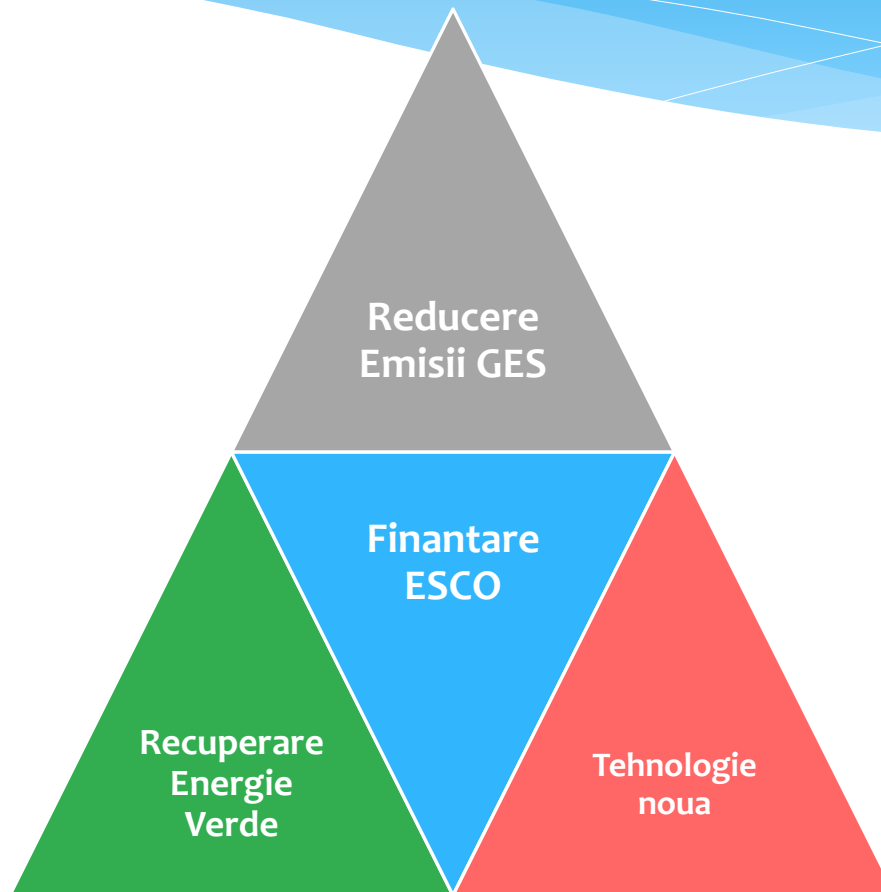
PERFORMANTE OBTINUTE

- ❖ Creșterea puterii instalate cu 16,2%;
- ❖ Creșterea randamentului electric al ciclului ORC al CHP cu ~3%;
- ❖ Creșterea cu ~25% estimat, a producției anuale de “energie electrică verde” (*dar se va determina după 1 an de zile de funcționare*);
- ❖ Reducerea emisiilor GES cu ~1.000 t CO₂/an

“COMBUSTIBILI” PENTRU ORC DE JOASA TEMPERATURA (REPLICABILITATE MARE)

- * Energie termica reziduala care oricum se pierde:
 - Gaze din motoare, CHP (gaz, biodiesel, bioas, etc.), racirea motoarelor;
 - Abur rezidual (deseu) de joasa presiune
- * Procese industriale:
 - Industria metalurgica, sticla, alimentara, etc;
 - Procese de incinerare (biocombustibili, deseuri, etc.);
 - Petrochimie (racire distilat);
 - Termocentrale;
- * Aplicatii geotermale, retele de termoficare;
- * Incalziri, raciri de gaze

CARACTERISTICI “POLITICE” ALE PROIECTULUI



Multumesc !

- * Dragostin Catalin
- * SC Energy-Serv SRL
- * www.energy-serv.ro
- * Tel/Fax: 0040-21-311-8345
- * Email: catalin.dragostin@energy-serv.ro
- * office@energy-serv.ro