



(THERMAL ENERGY STORAGE)

Generic P&ID Operation/Architecture



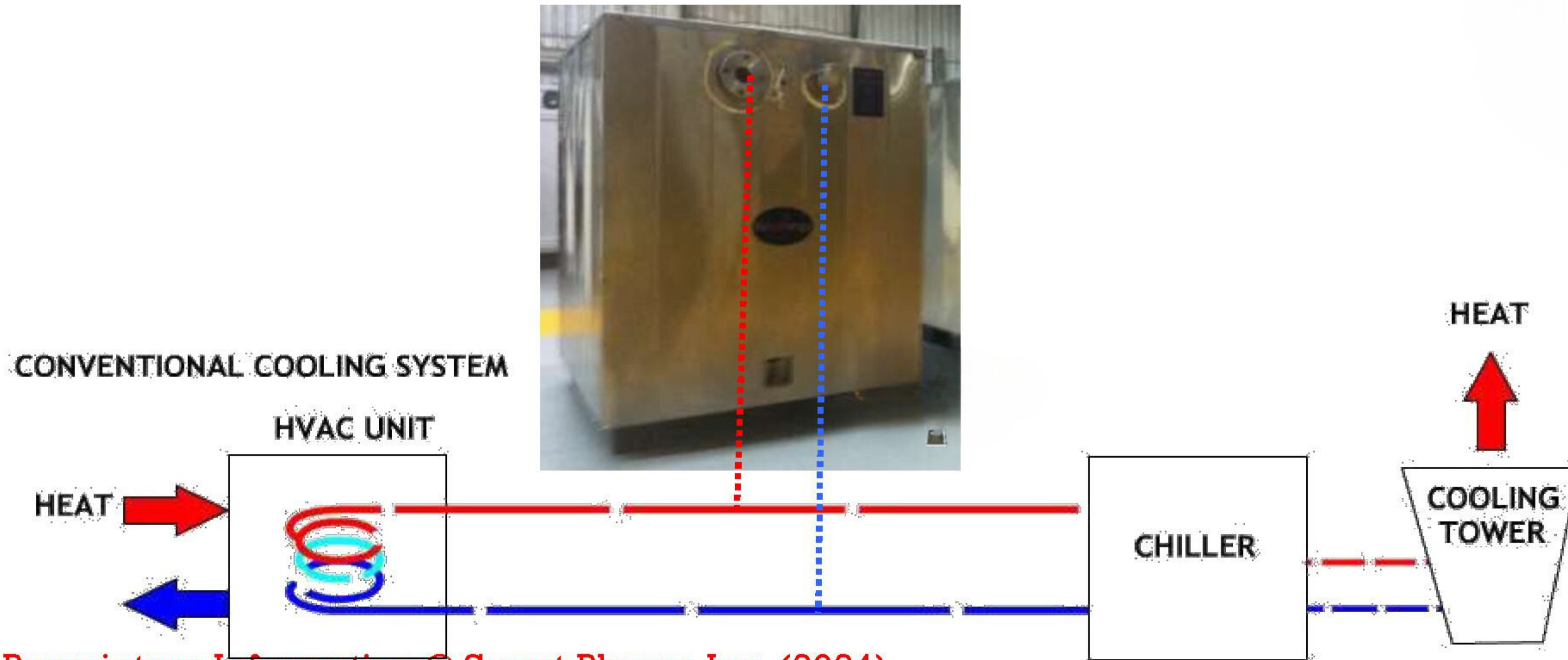
Suggestions For Discussions Only

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TESS COOLING GENERIC ARCHITECTURE

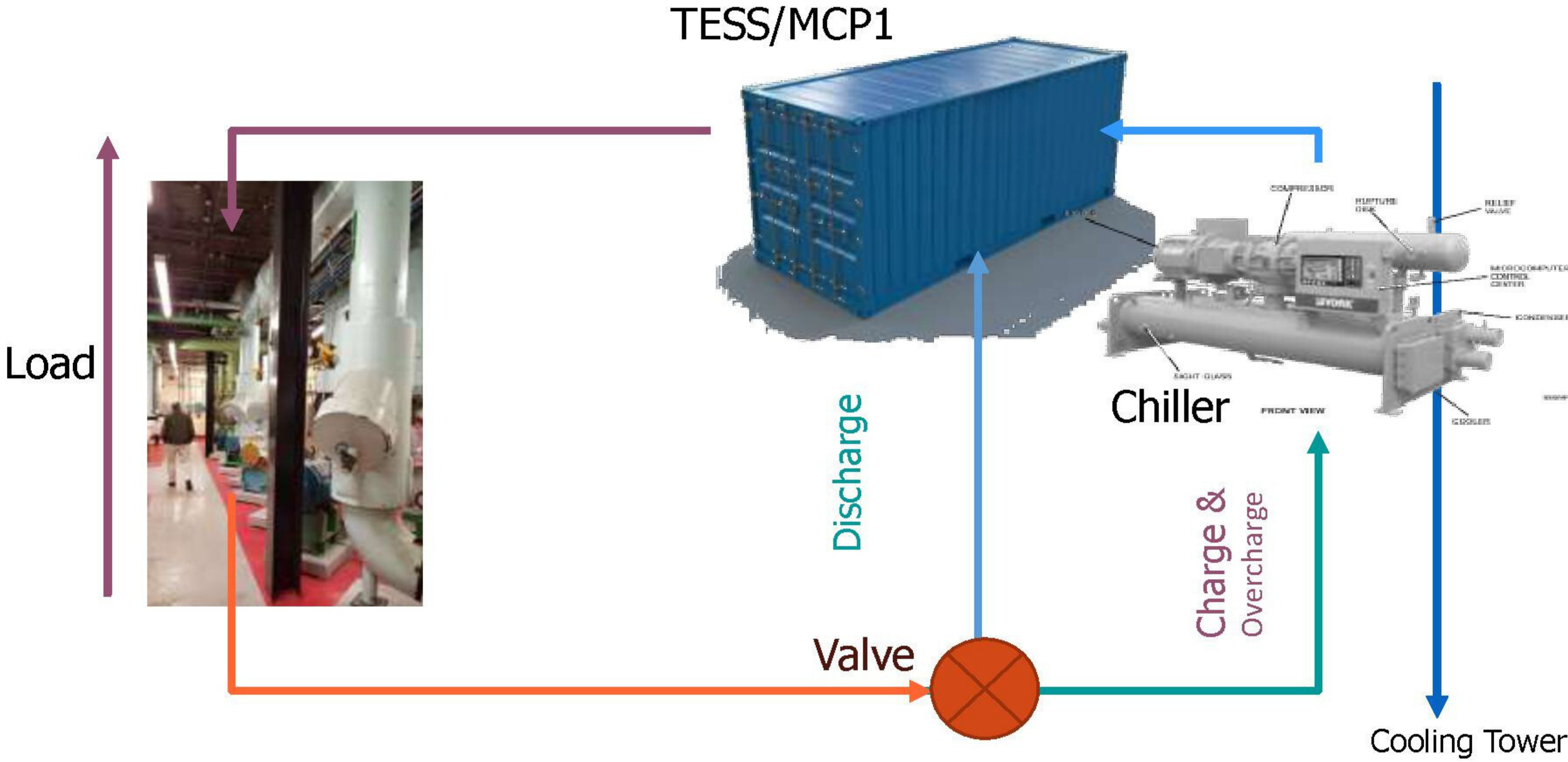
- ✦ SPCM “Discharged” during on-peaks hours, avoiding startup of additional chillers
- ✦ SPCM “Charged” during off-peak hours when outside temperature is more favorable and utility rates are lower
- ✦ Chillers can be run at optimal utilization for highest efficiency
- ✦ Maximize advantage from free cooling where/when applicable

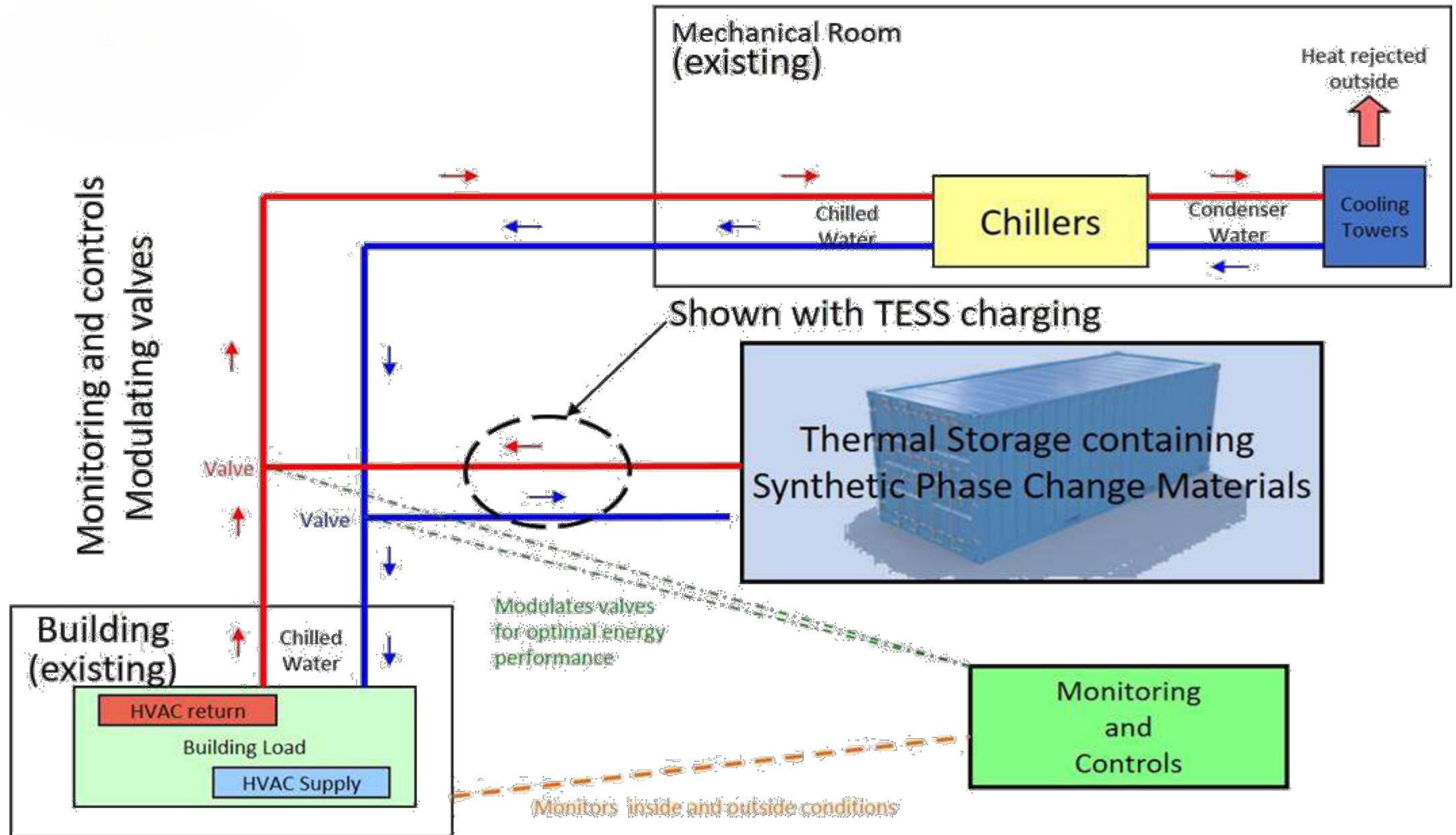


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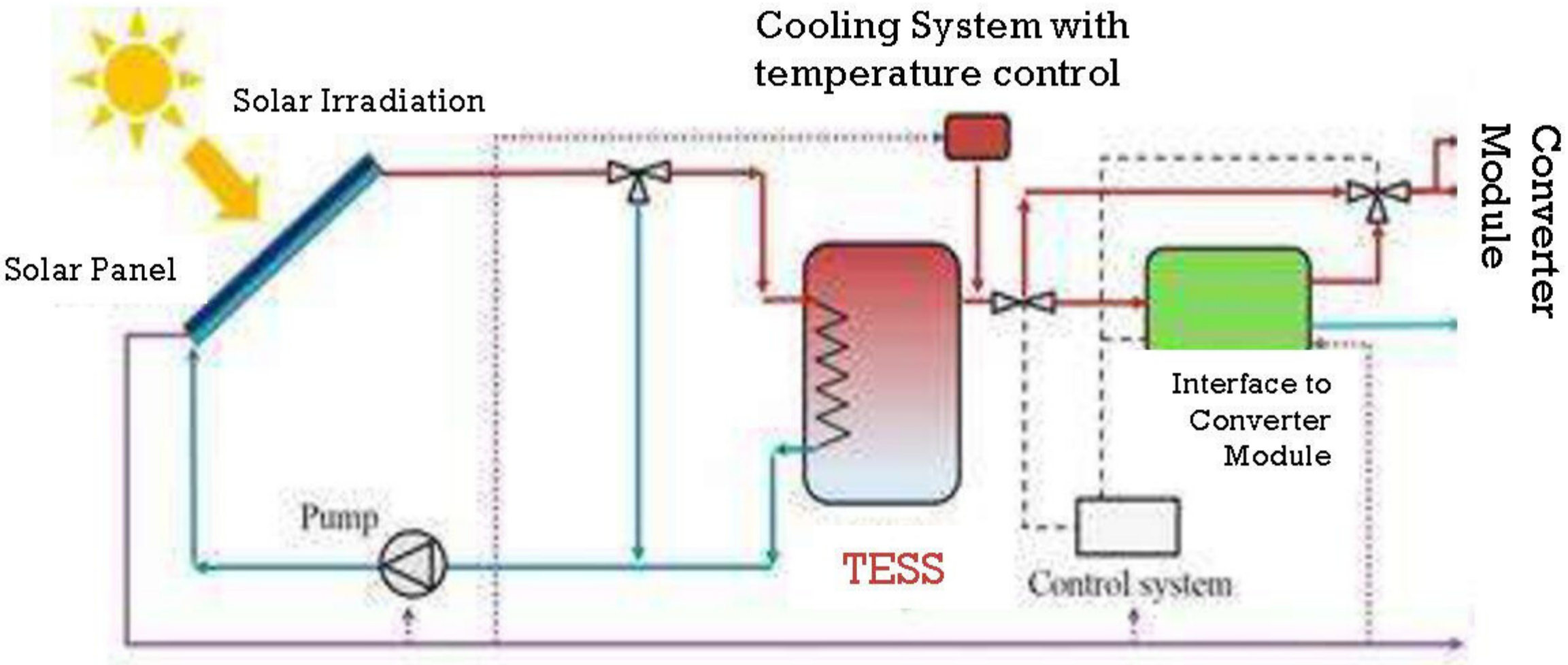
NOVACAB TESS APPLICATIONS IN A CHILLED WATER PLANT

Architectural Overview Diagram (Generic Hybrid Parallel/Serie Approach)

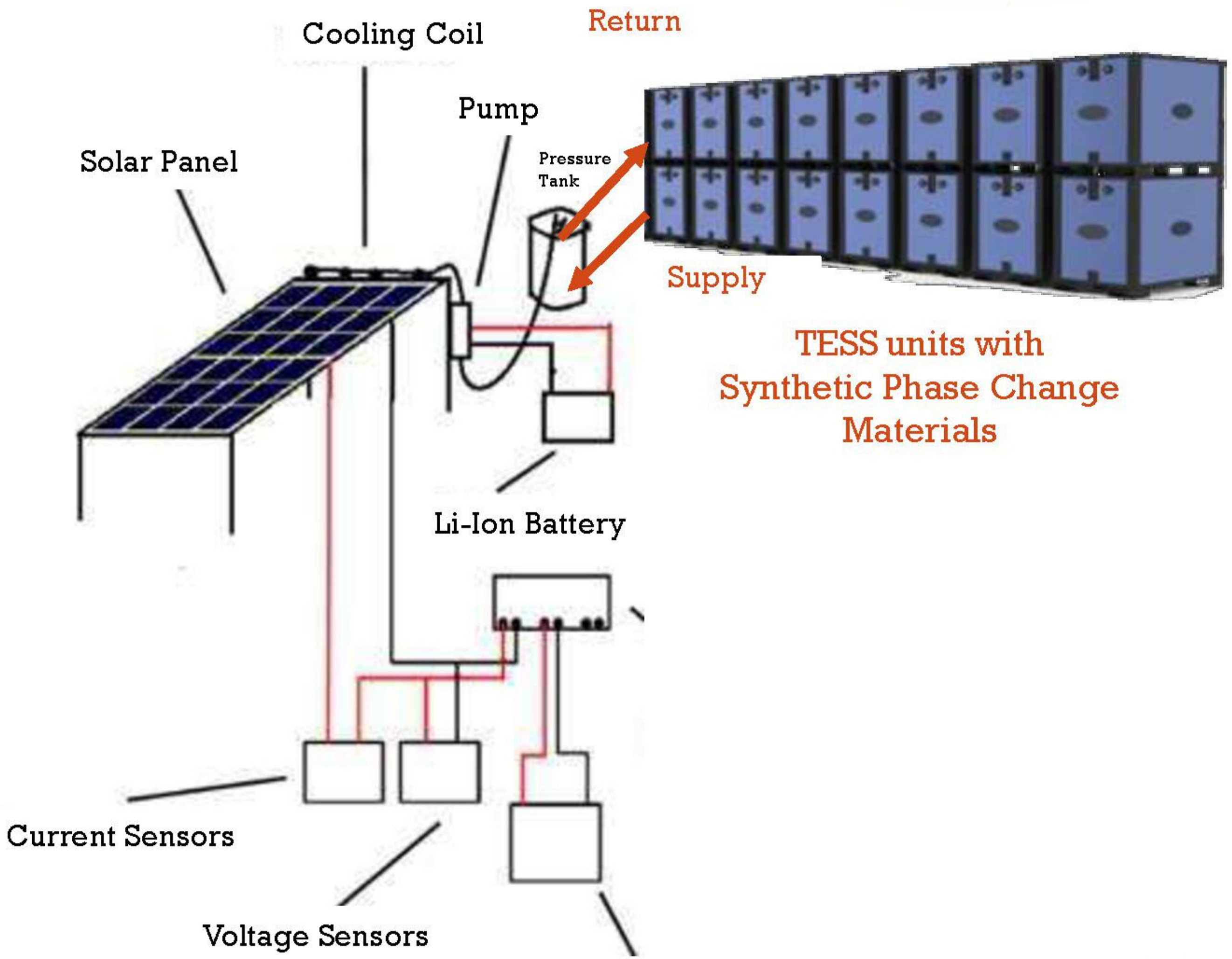




Special Architecture: Solar Panel Cooling

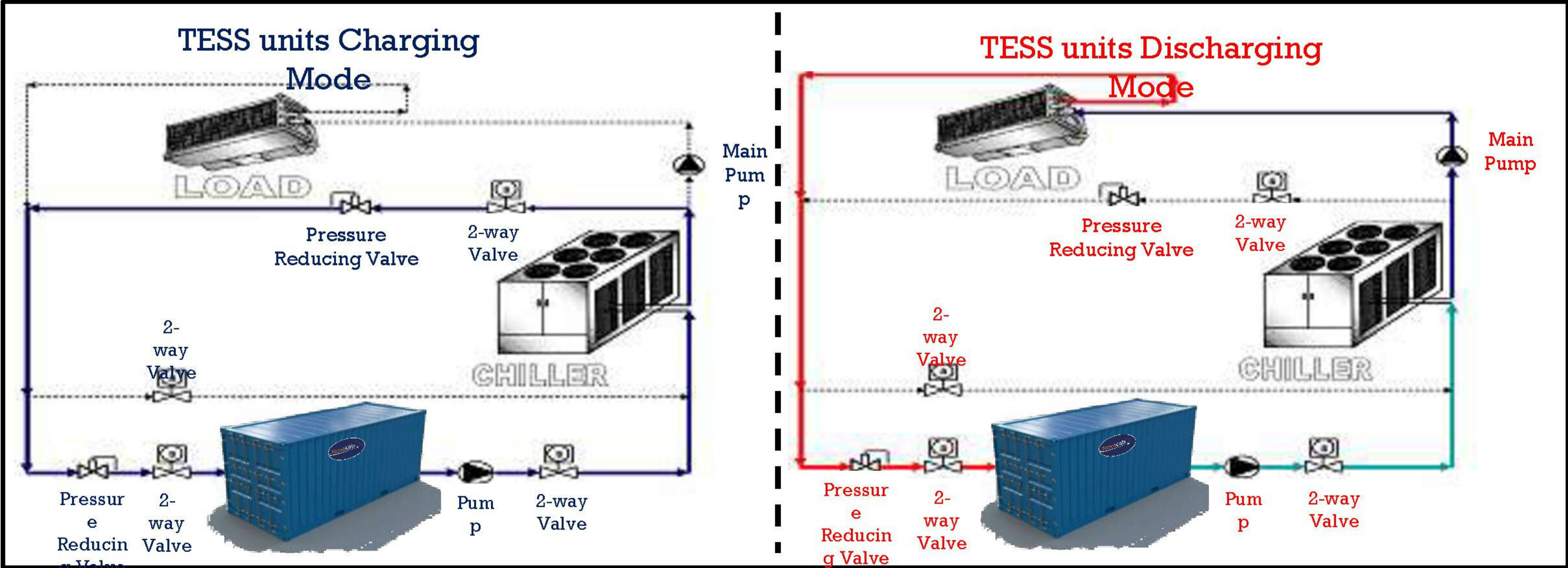


1st Set-up (option full size to mid-size system)



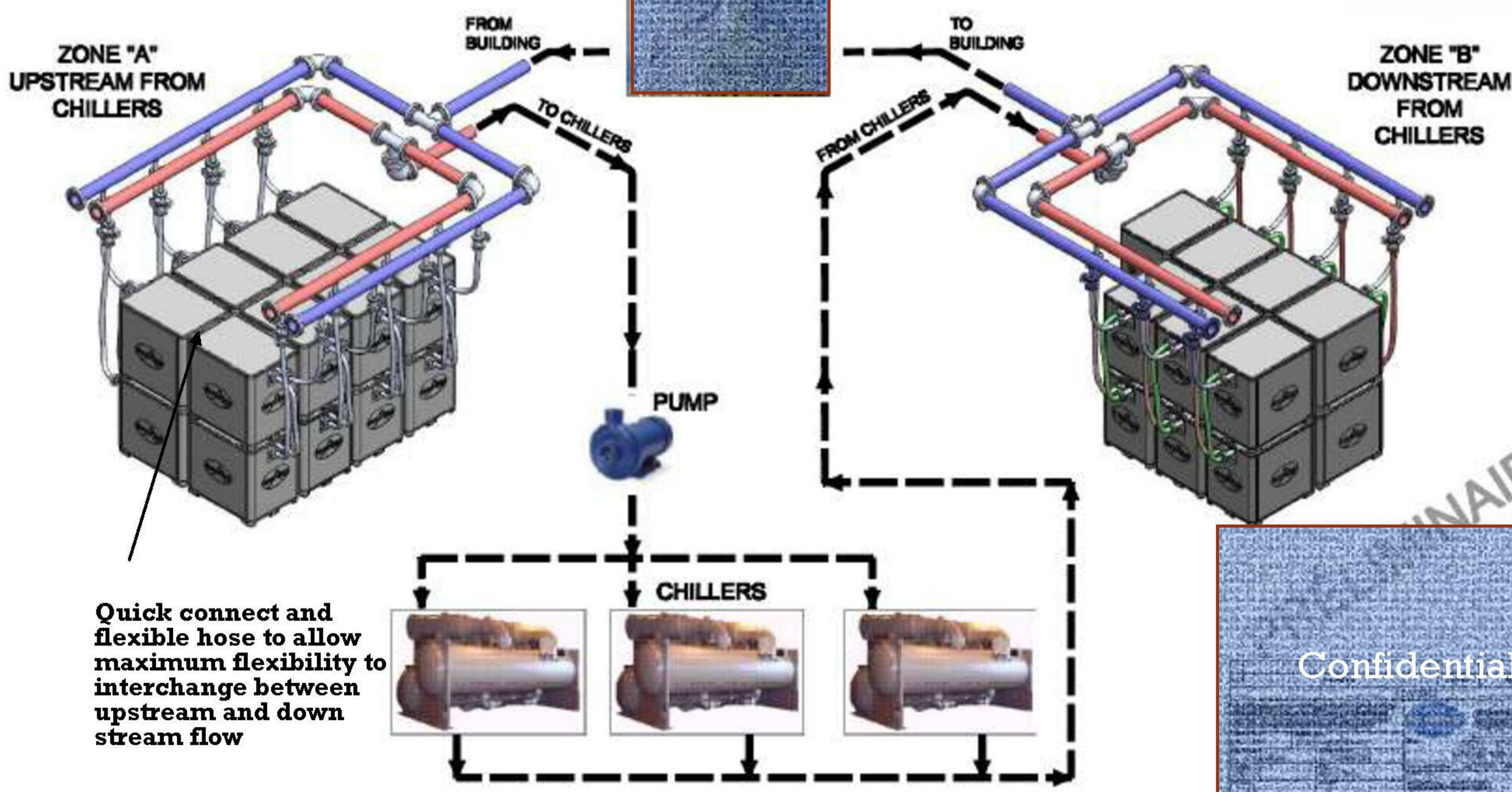
2nd Set-up (option mid-size system)

Simple Architecture: Charging/Discharging configuration for TESS in Series)



MATERIALS LIST					
No.	DESCRIPTION	DIMENSION	MATERIAL	SUPPLIER	Qty

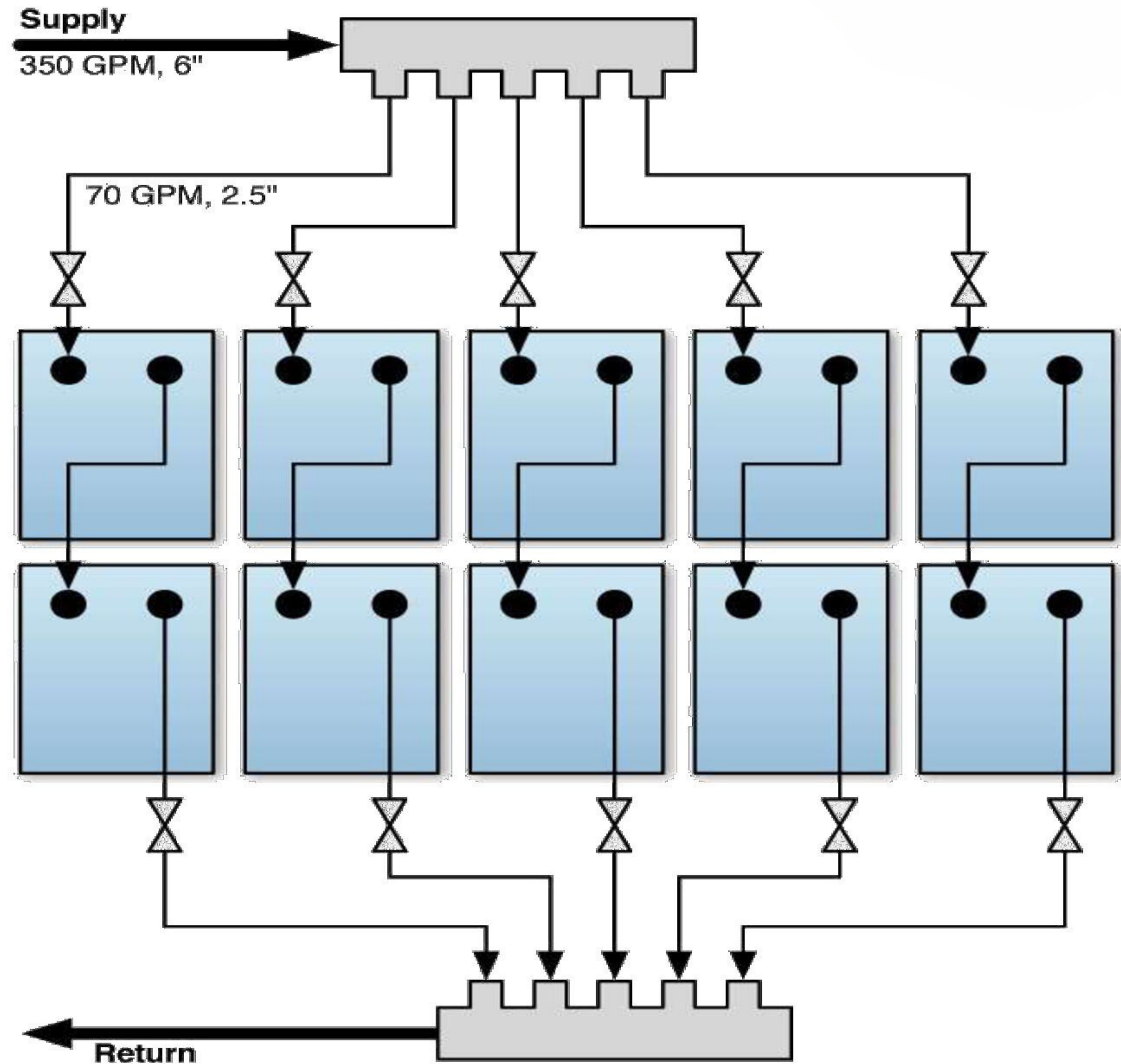
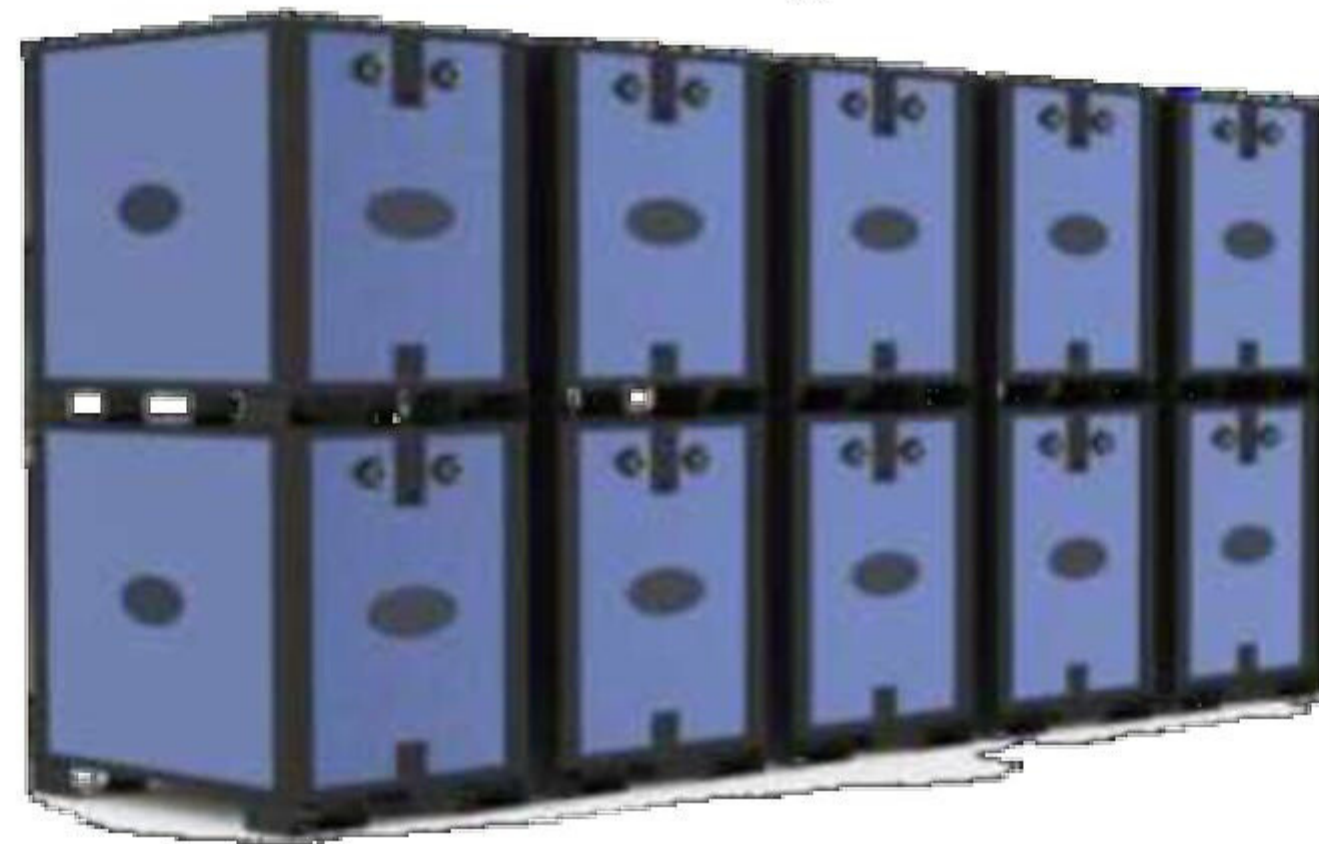
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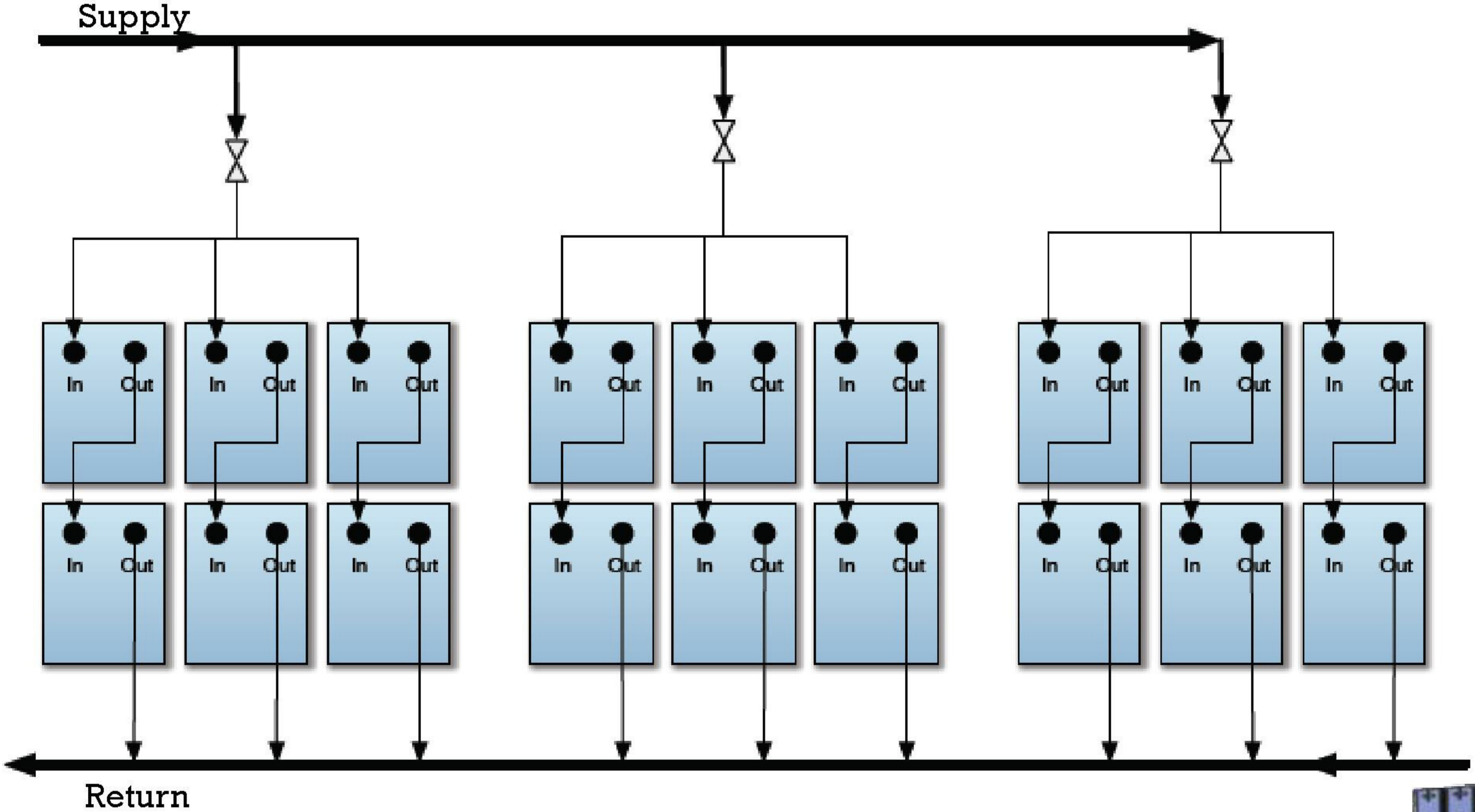
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Special Architecture: Double dT Layout (Dual Novacab TESS in Series)

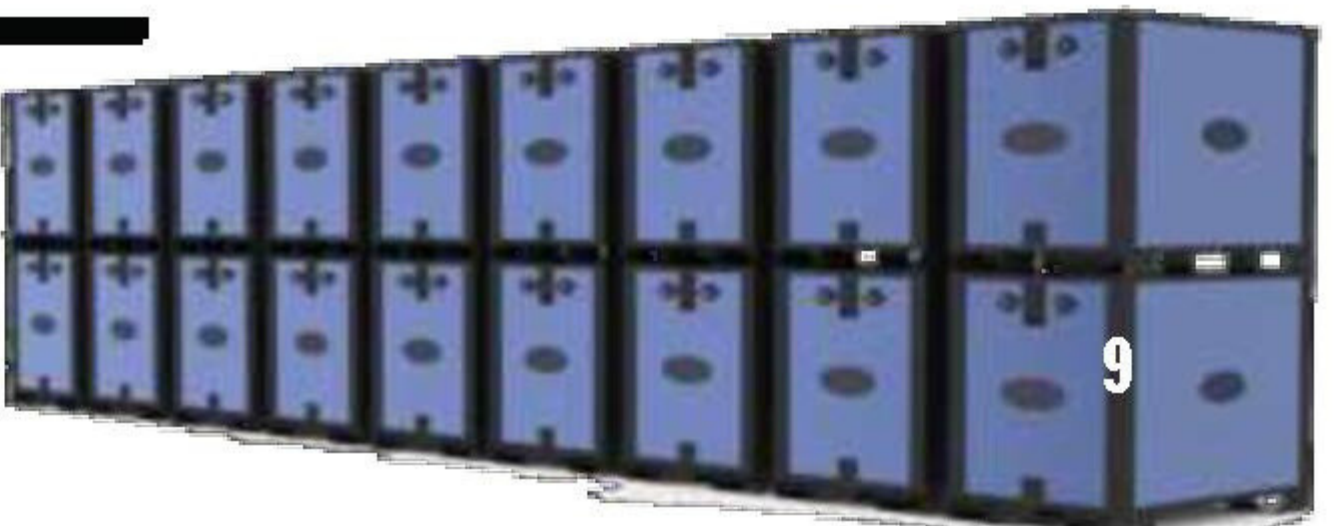
TESS units with
Synthetic Phase
Change Materials



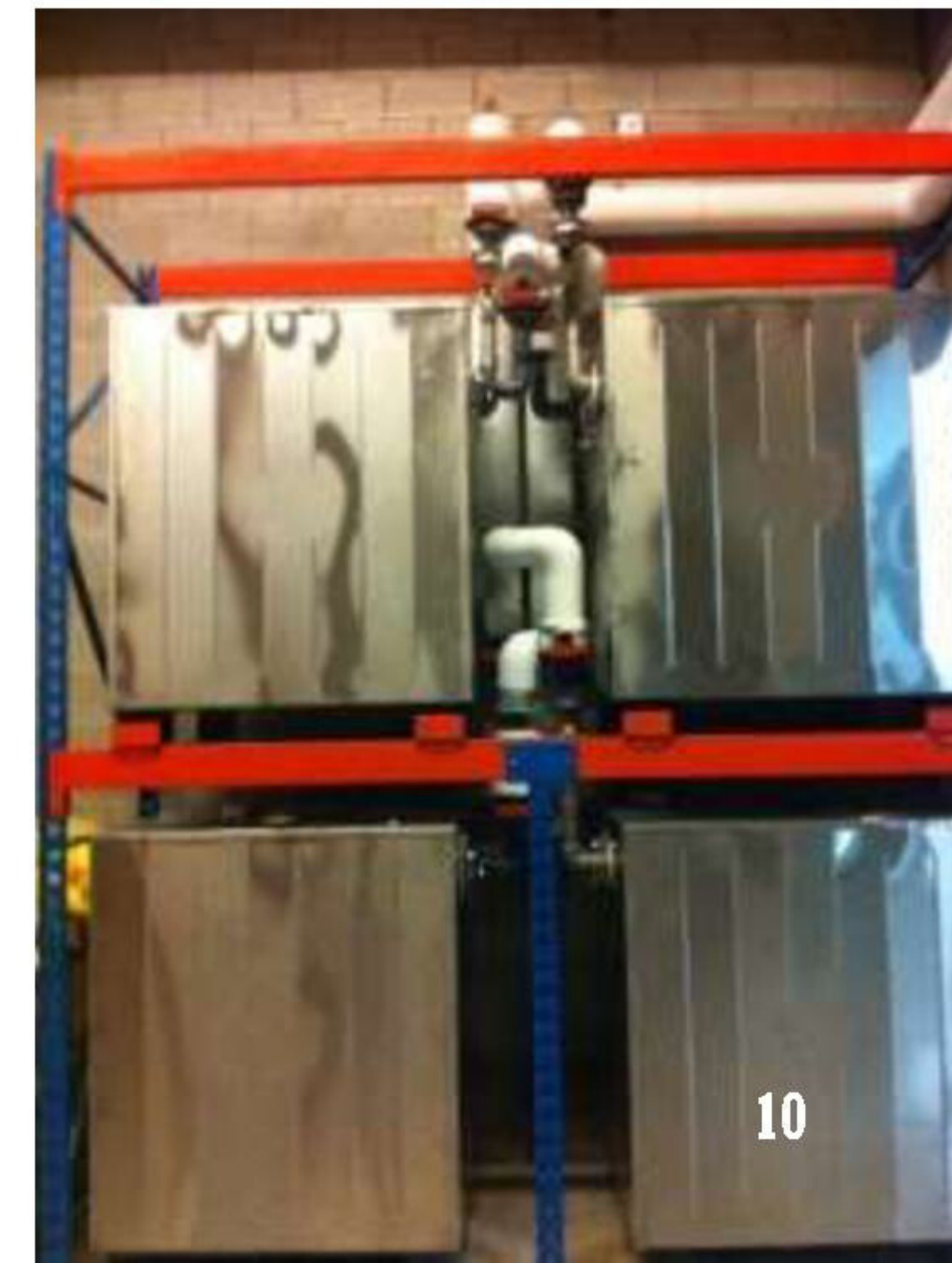
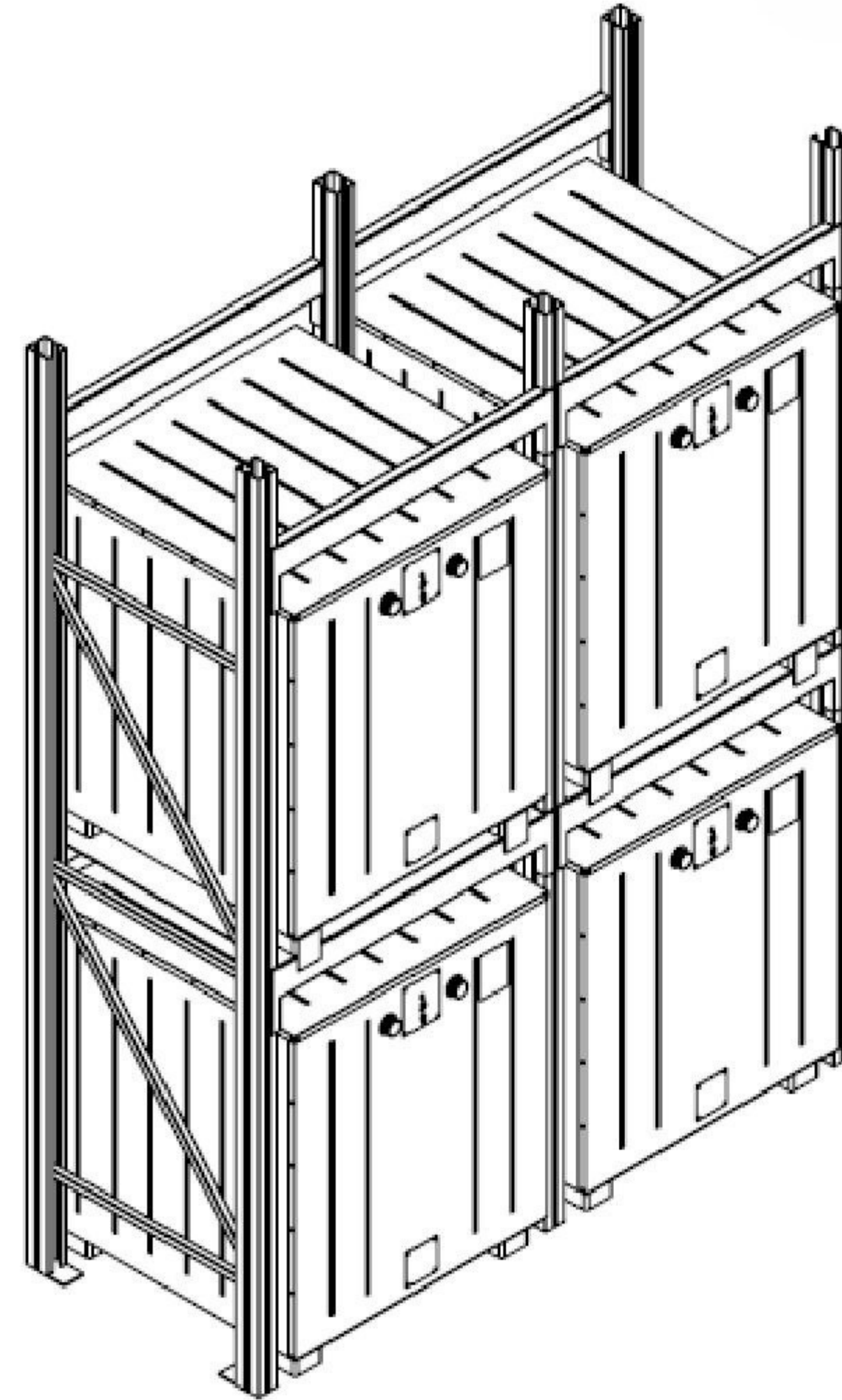
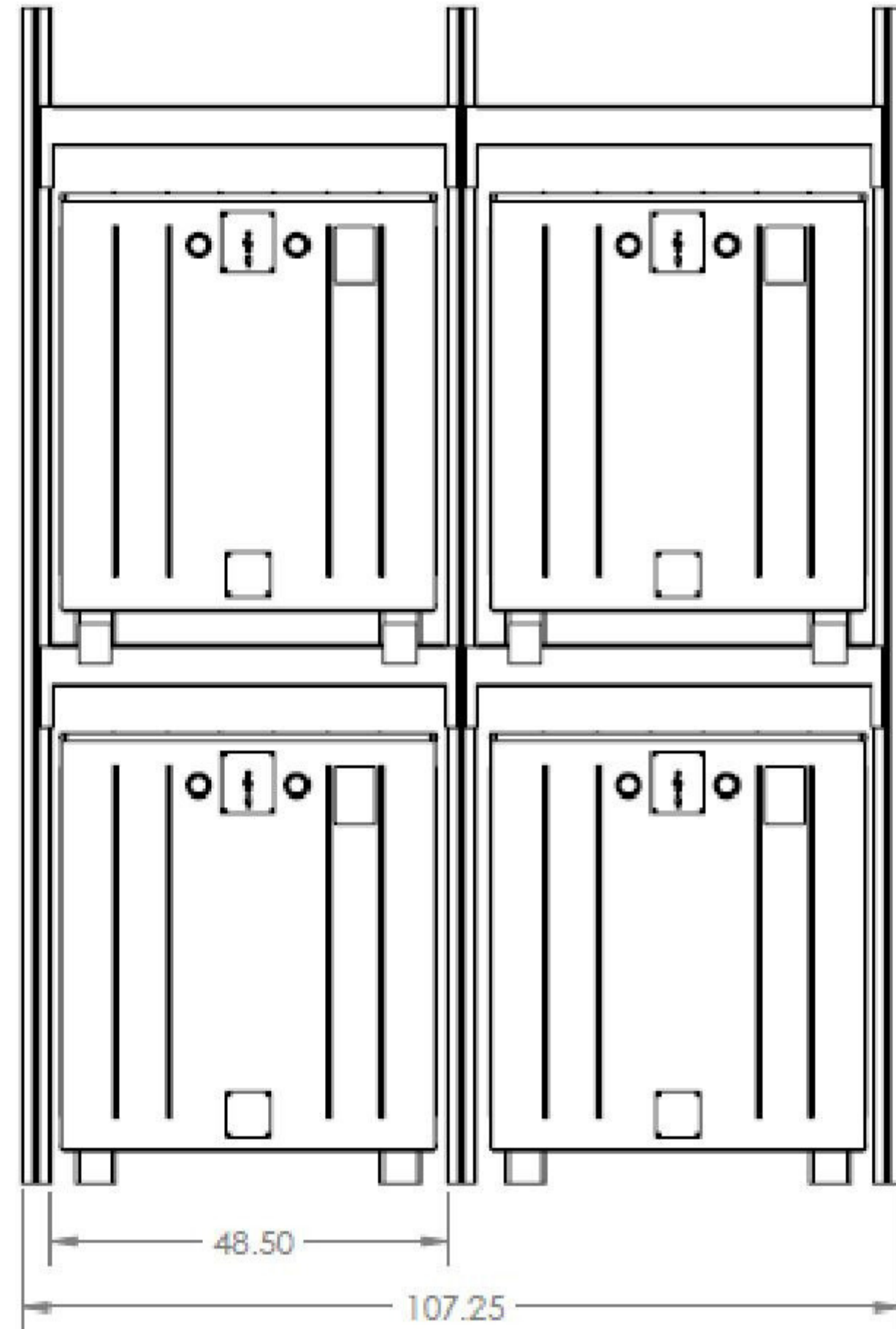
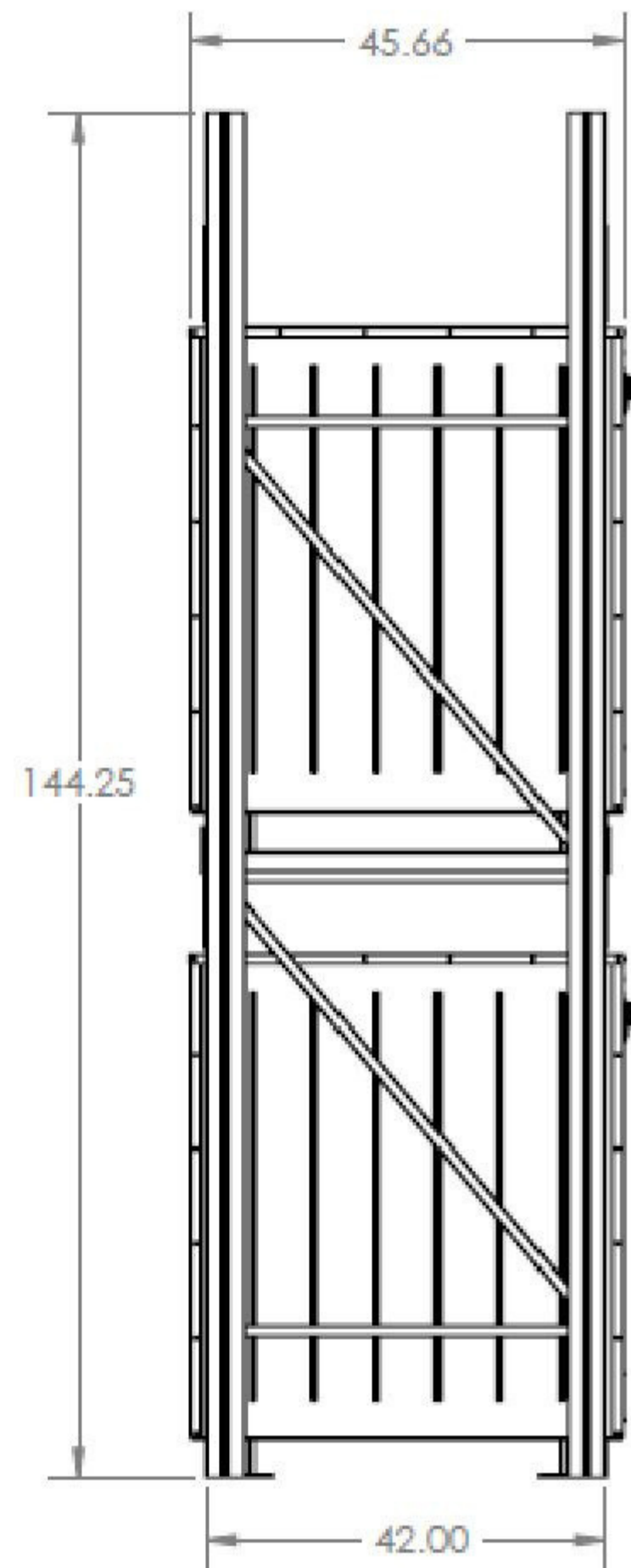
Special Architecture: Double dT Hybrid Layout (TESS In Series+Parallel)



TESS units with
Synthetic Phase
Change Materials



Special Architecture: Stacking configuration for TESS in Series)



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