

# IEEE International Conference on Smart Grid Engineering (SGE'12)



27-29 August, 2012  
UOIT, Oshawa, Canada



Sponsored by IEEE Toronto (NPSS & PES) and MITACS

Panel Discussion (27-Aug-2012, 3:00-  
5:00pm)

Challenges, Approaches, and Practical  
Implementations of Micro Grids with  
Energy Conservation Strategies



# Panel List

- Hossam Gaber (Chair), UOIT, Canada
- Joseph Jedinak, Whitby Hydro, Canada
- Om Malik, University of Calgary, Canada
- Mohammed Safiuddin, UB, US
- Darold Wobschall, Esensors Inc., US



# SMART GRID

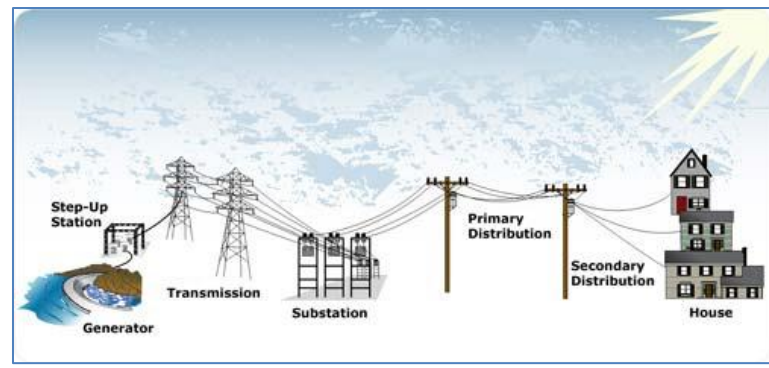
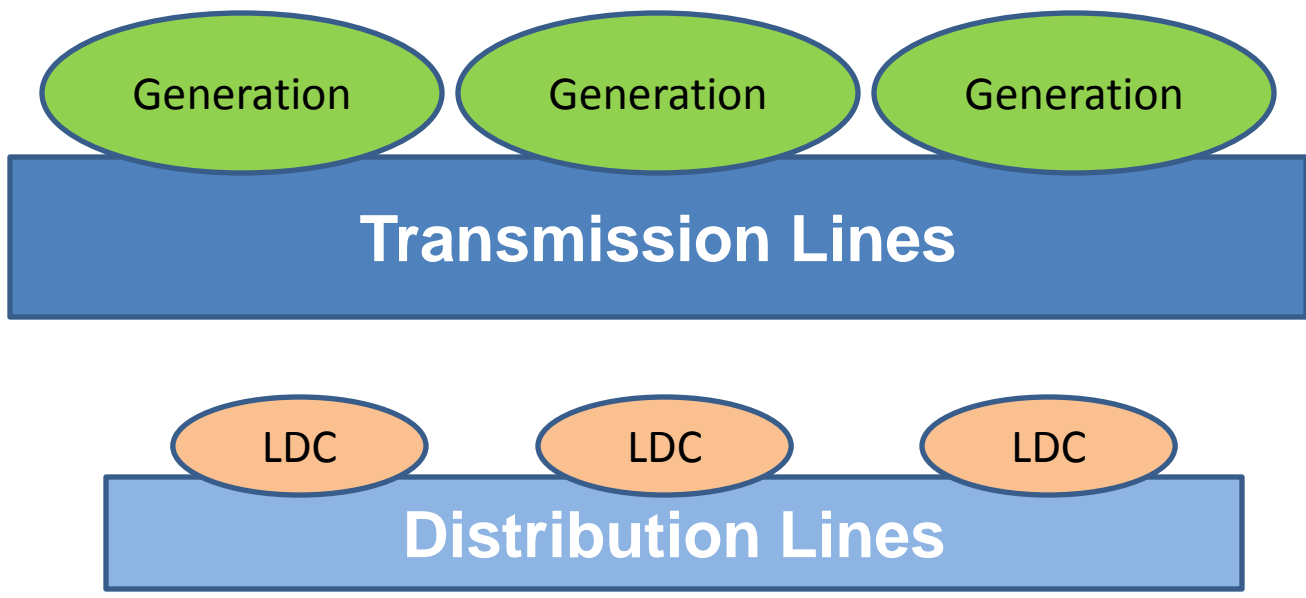
Specific, Measurable,  
Accurate, Relevant,  
Timely, Evaluative, and  
Recordable



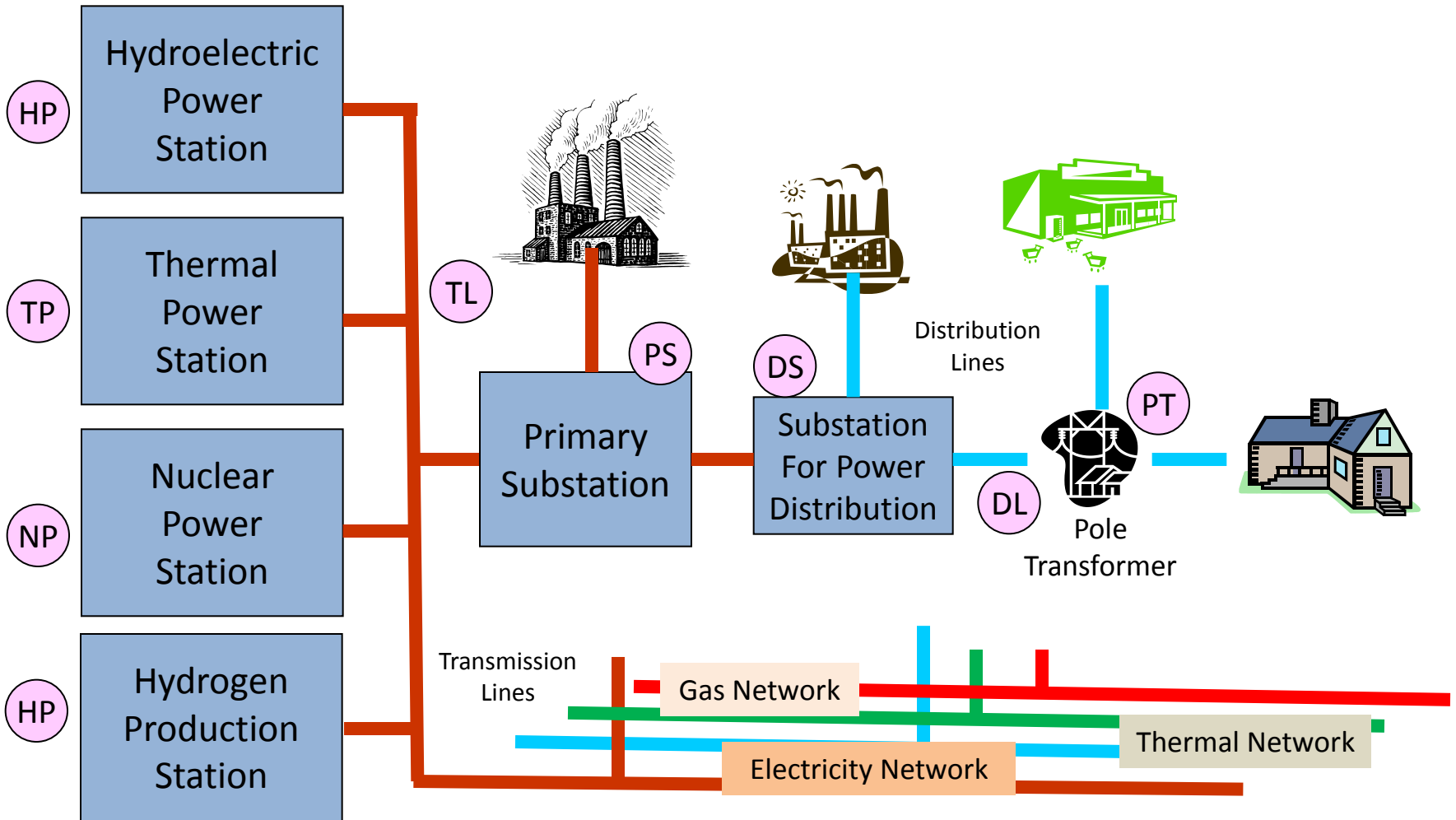
# Scope

- Micro grids as part of integrated smart grid infrastructures

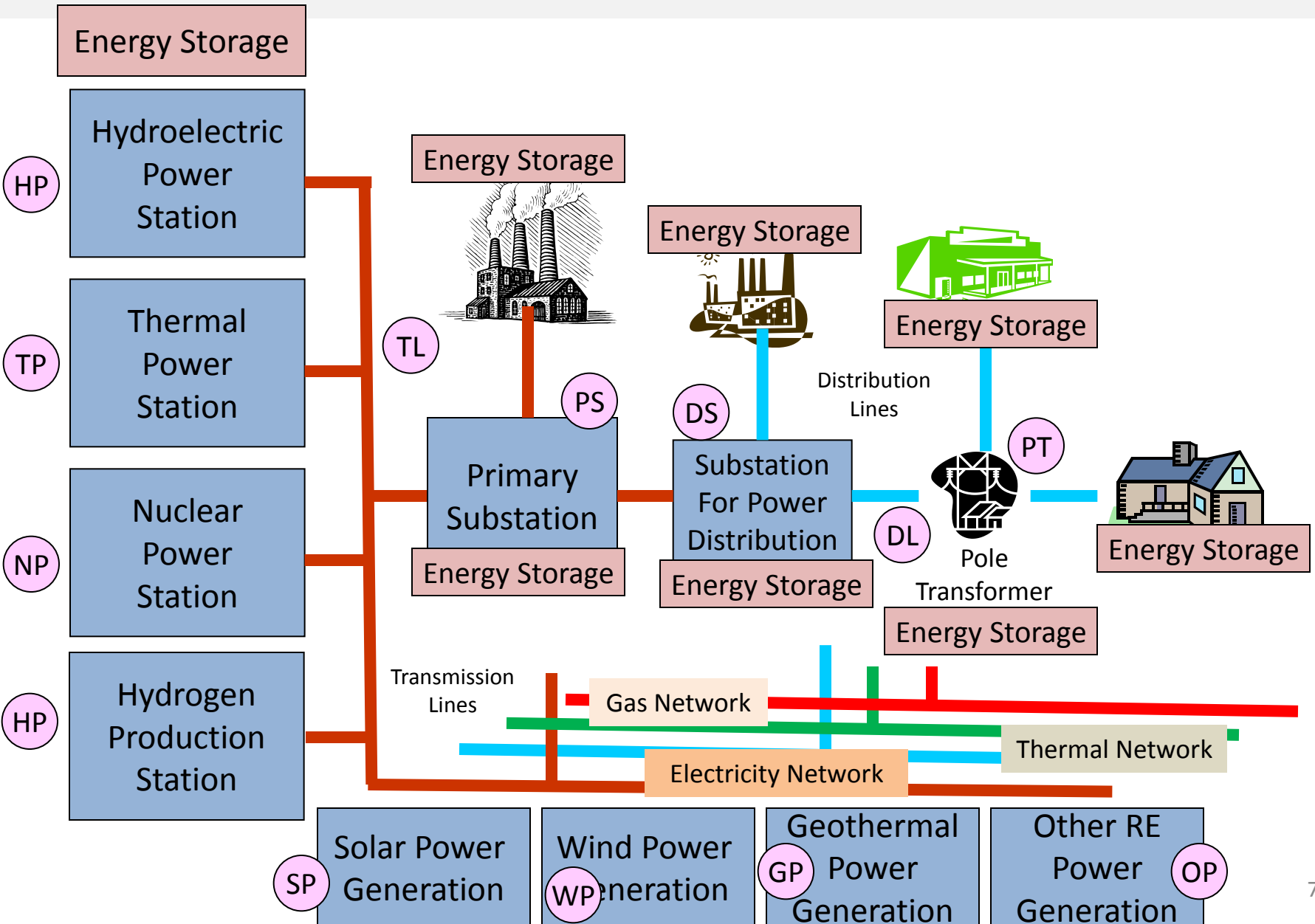
# Current Grid



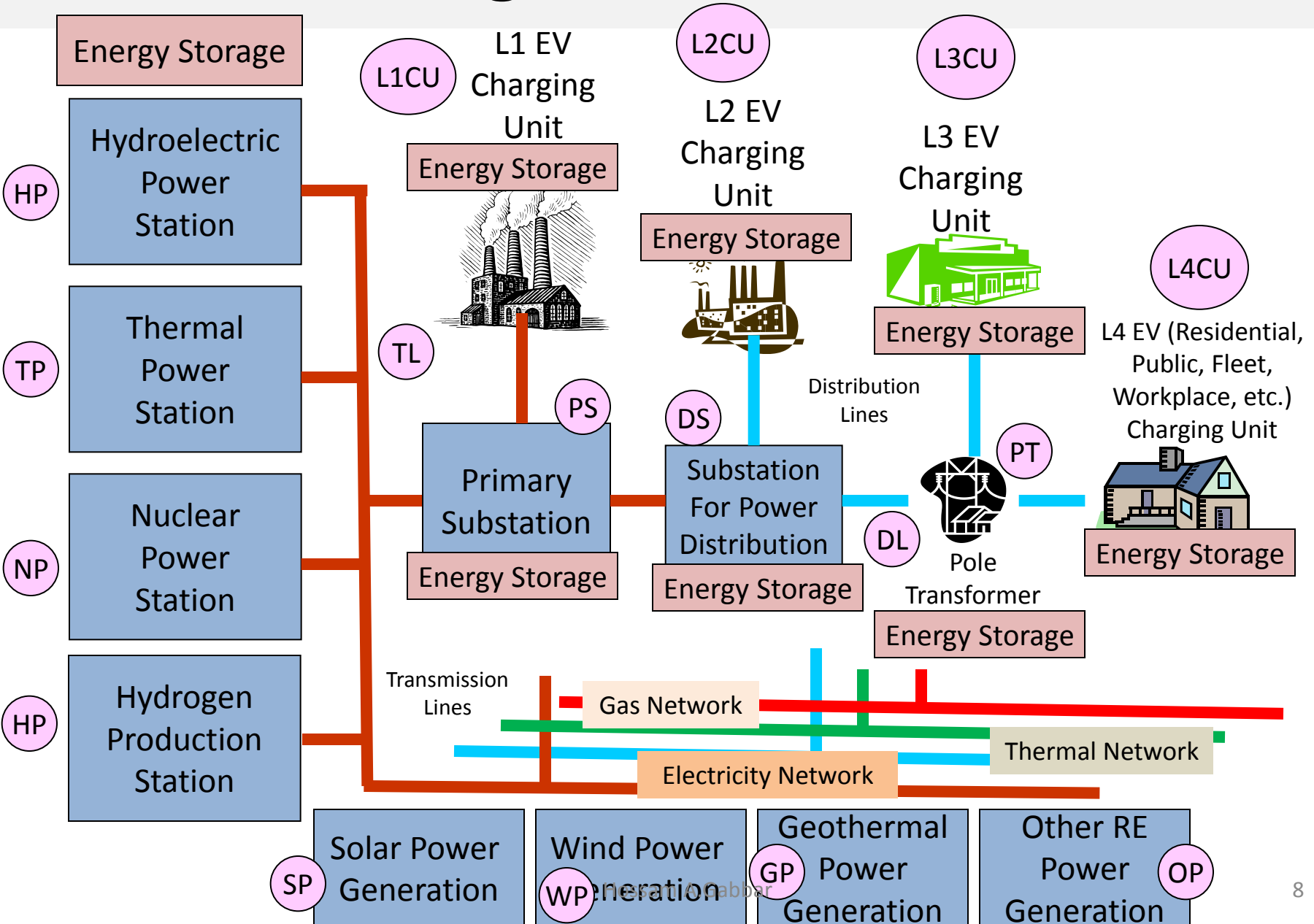
# SG Adaptive Superstructure Modeling



# Integration of DG / ES

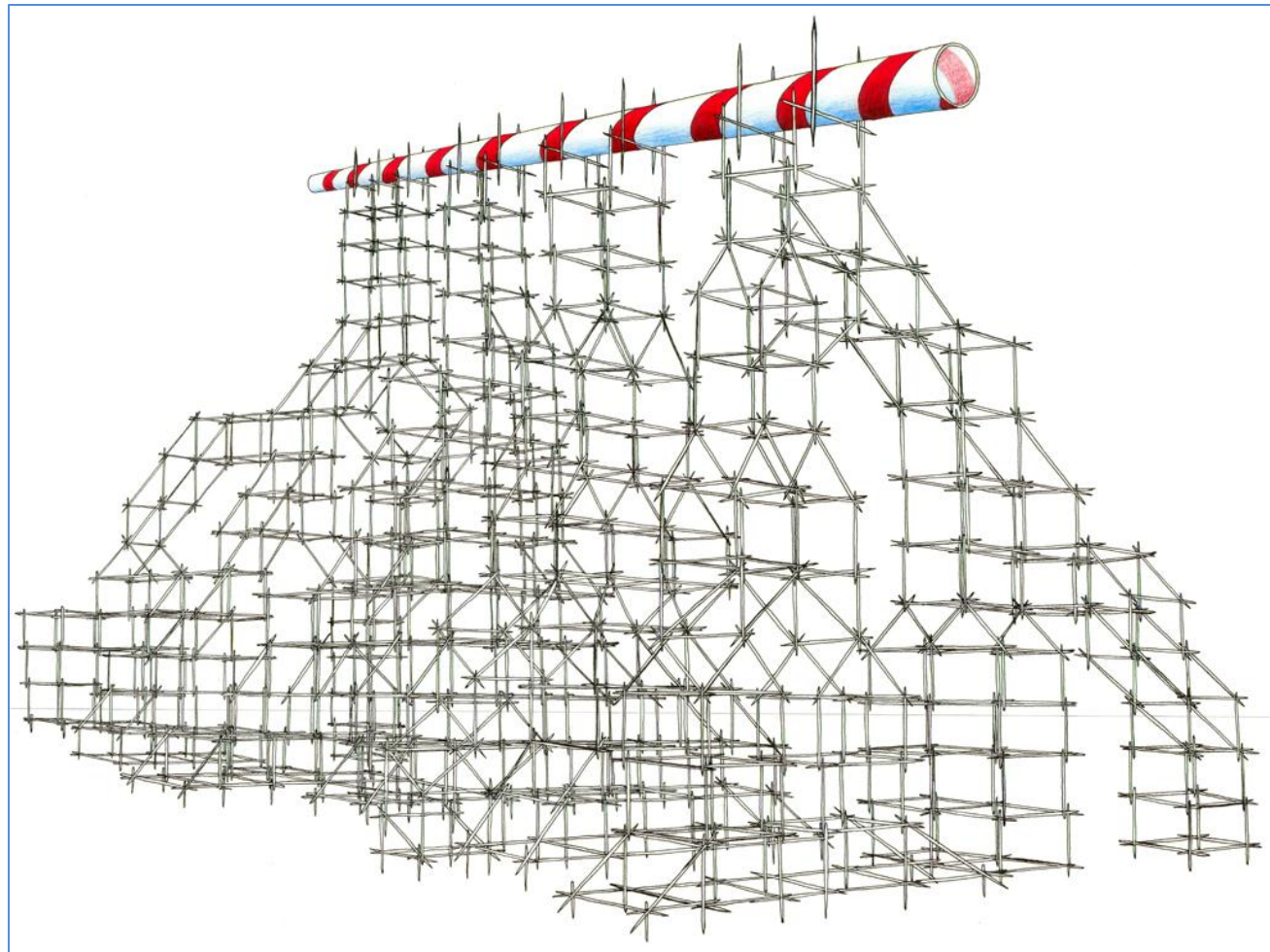


# Integration of PHEV

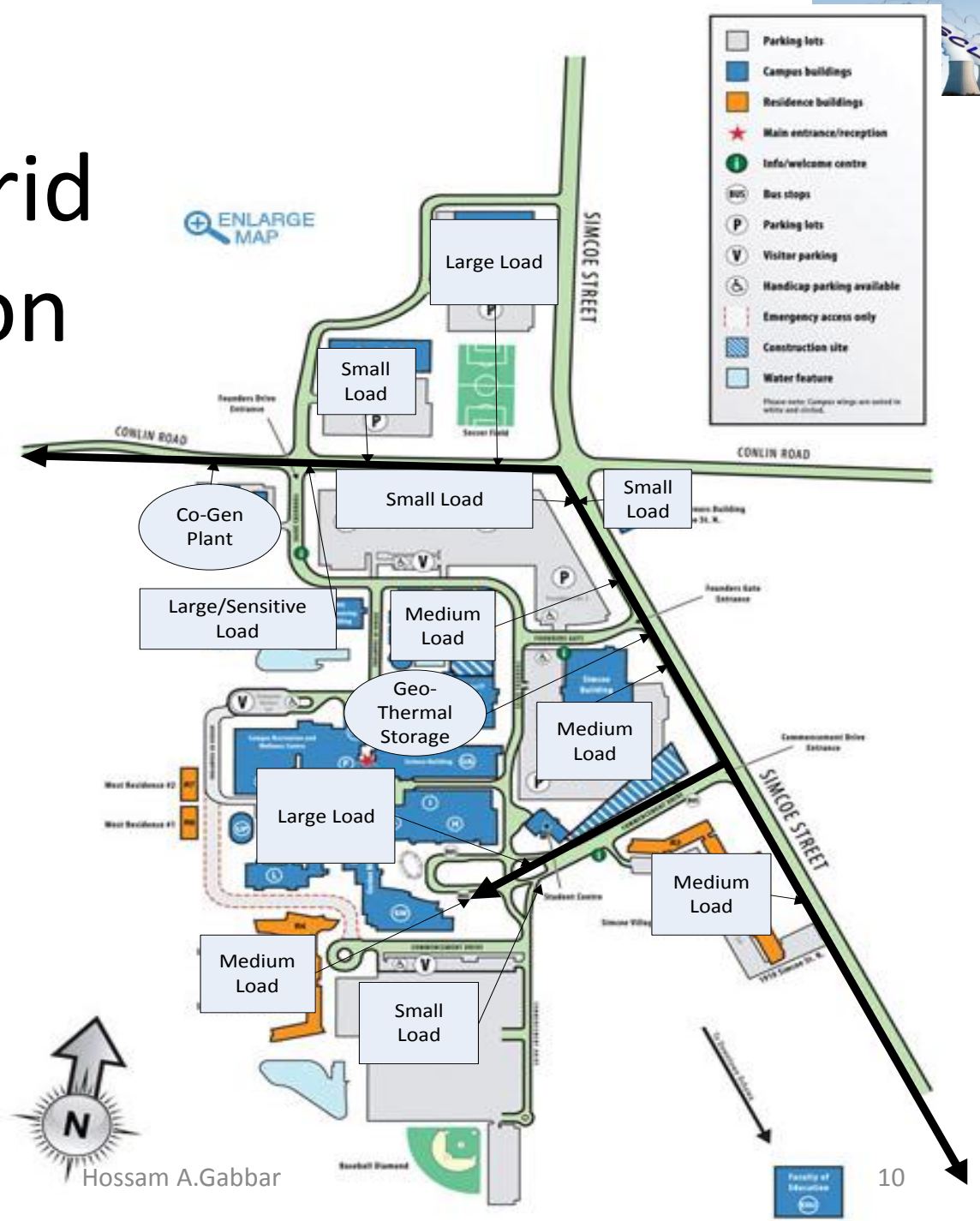




# Adaptive Grid Superstructure!

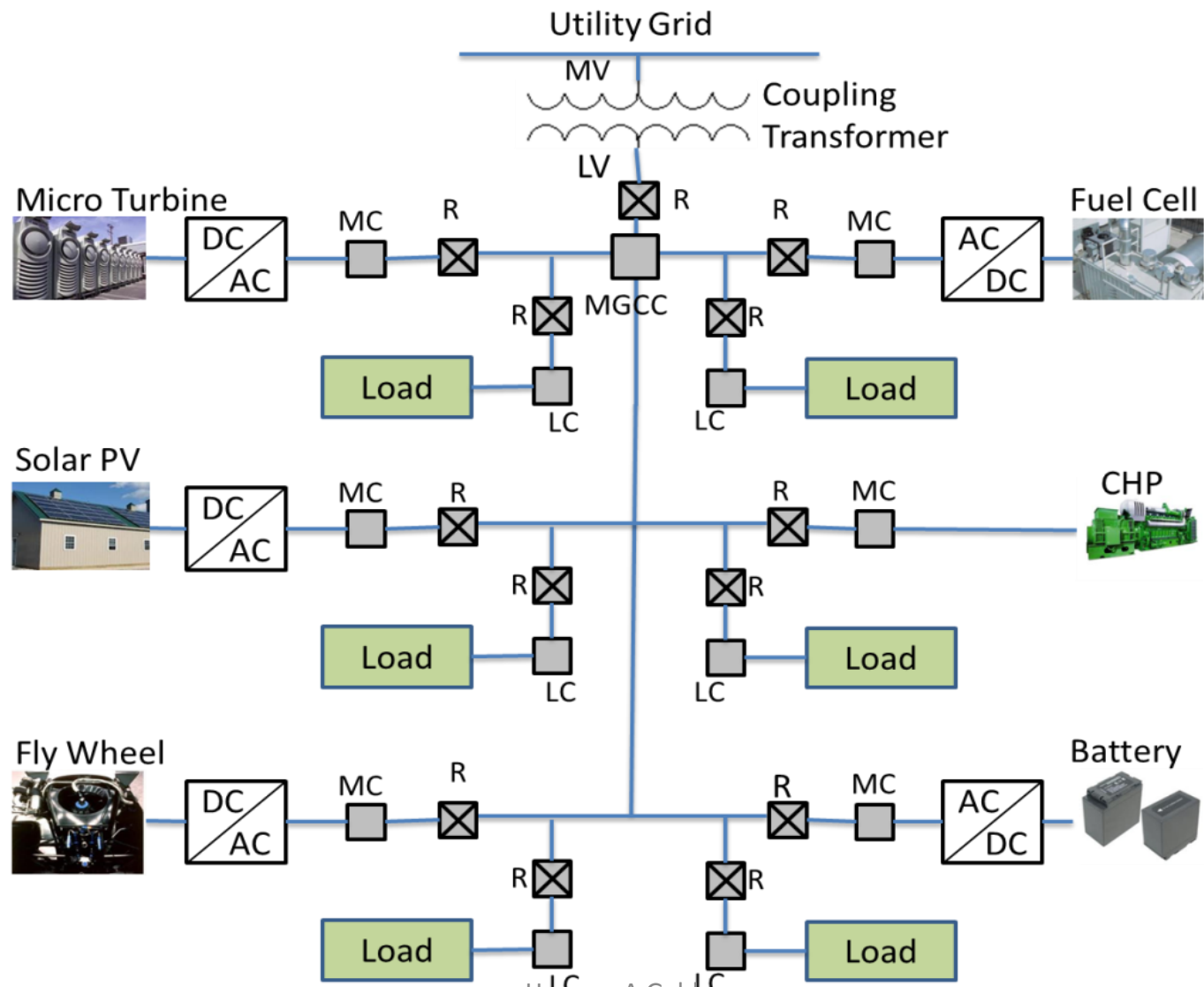


# UOIT Micro Grid Demonstration Platform



Hossam A.Gabbar

# Micro Grid Demonstration Model



# Publications

- **Md Razibul Islam**, Hossam A. Gabbar, **Manir Isham**, Protection & Control Analysis of Micro Grid with Distributed Generation & Energy Storage, International Journal of Power Engineering and Green Technology (IJPEGT) (Accepted).
- Hossam A.Gabbar, **Razibul Islam**, **Manir U Isham**, **Vatsal Trivedi**, Risk-Based Performance Analysis of Micro Grid Topology with Distributed Energy Generation, International Journal of Electrical Power and Energy Systems (IJEPES) (Accepted).
- **Md Razibul Islam**, Hossam A.Gabbar, Study of Micro Grid Safety & Protection Strategies with Control System Infrastructures, Journal of Smart Grid and Renewable Energy (SGRE) (Accepted).
- Hossam A.Gabbar, **Razibul Islam**, **Manir U Isham**, Micro Grid Modeling and Demonstration, International Journal of Distributed Energy Resources (Submitted).
- Patents under development.



# THANK YOU