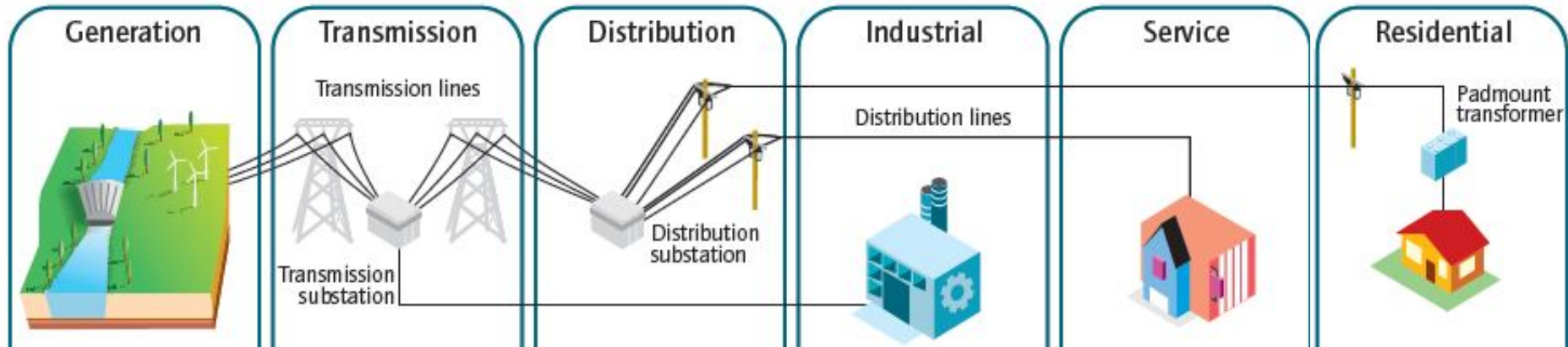


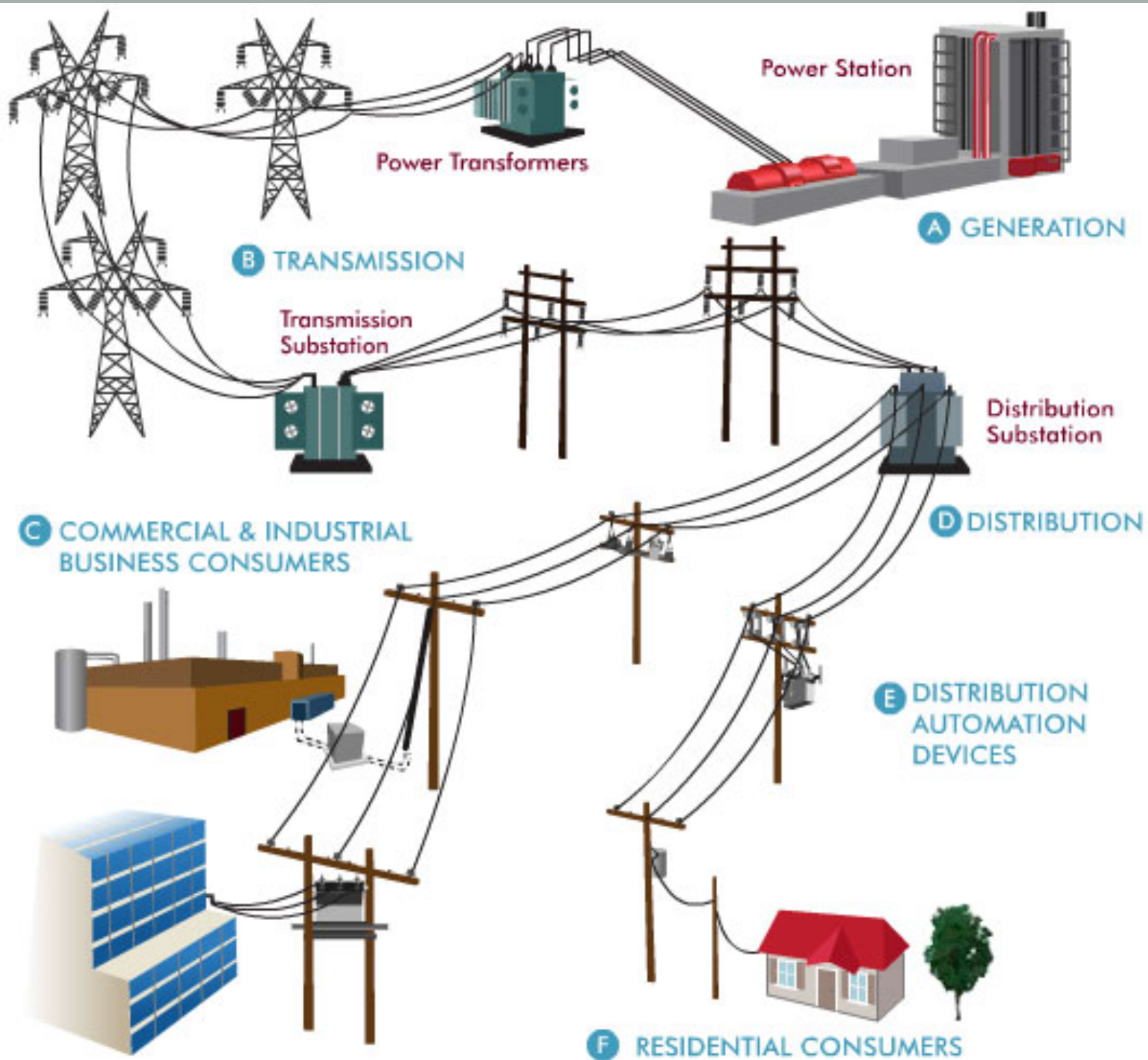
# ELECTRICITY IN NORTH ST. PAUL

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Presentations, videos and policy briefs from  
PA 5721: Energy and Environmental Policy, Fall 2013  
Elizabeth Wilson

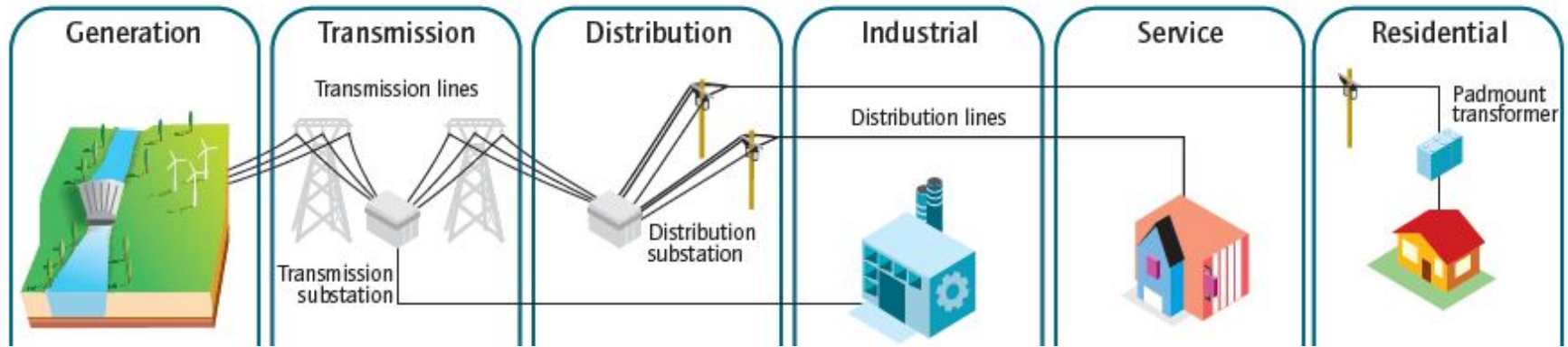
# The Electric Grid



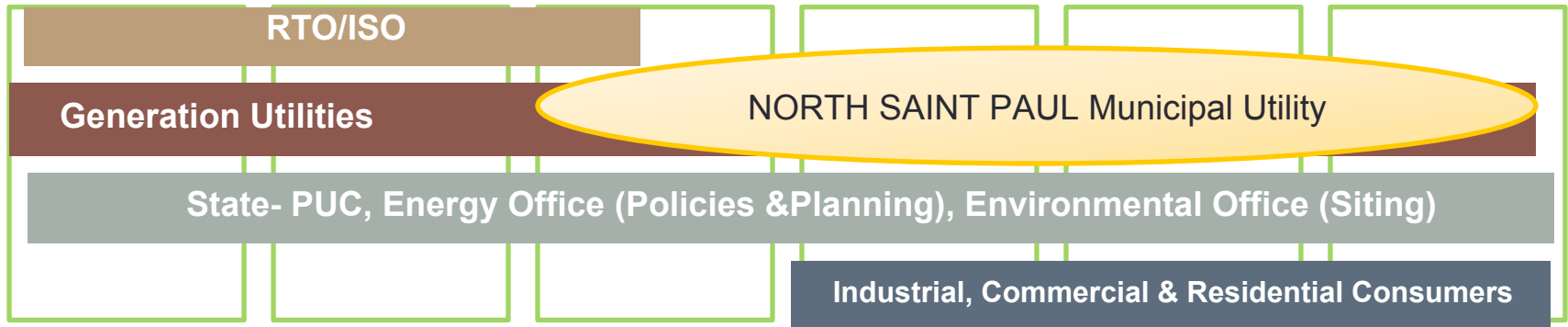


# Key Actors in the Electricity System

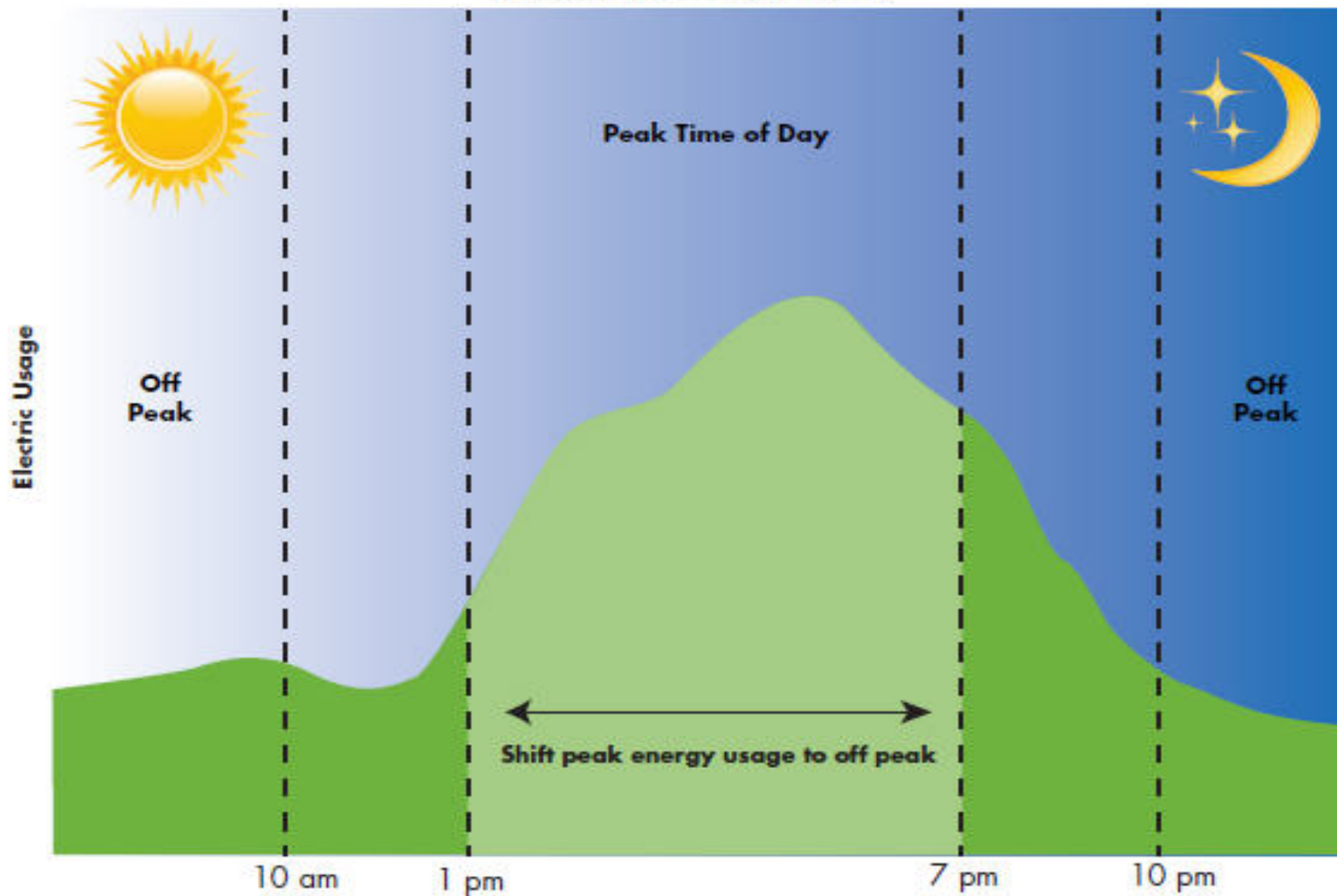
Electric System



Stakeholders



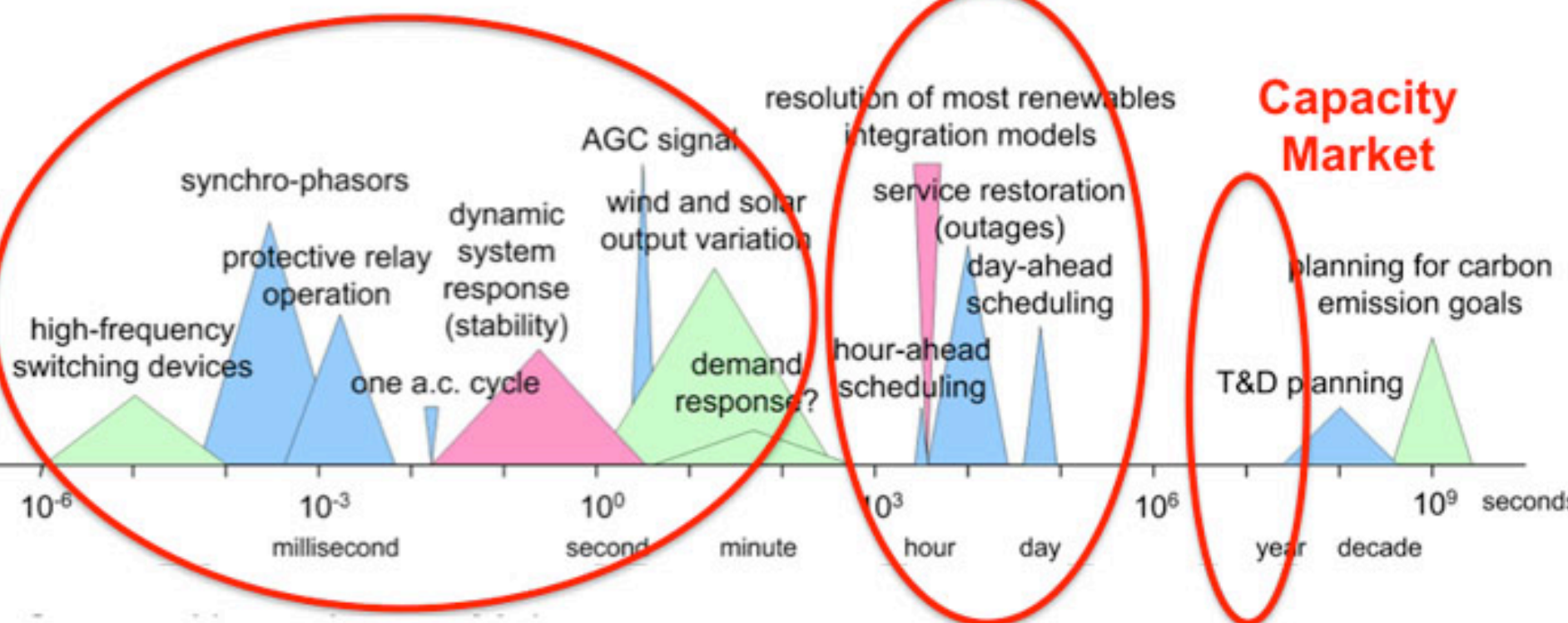
### Typical Electric Usage (Summer)



## Ancillary Services Markets

## Energy Markets (Day Ahead and Real-Time)

## Capacity Market





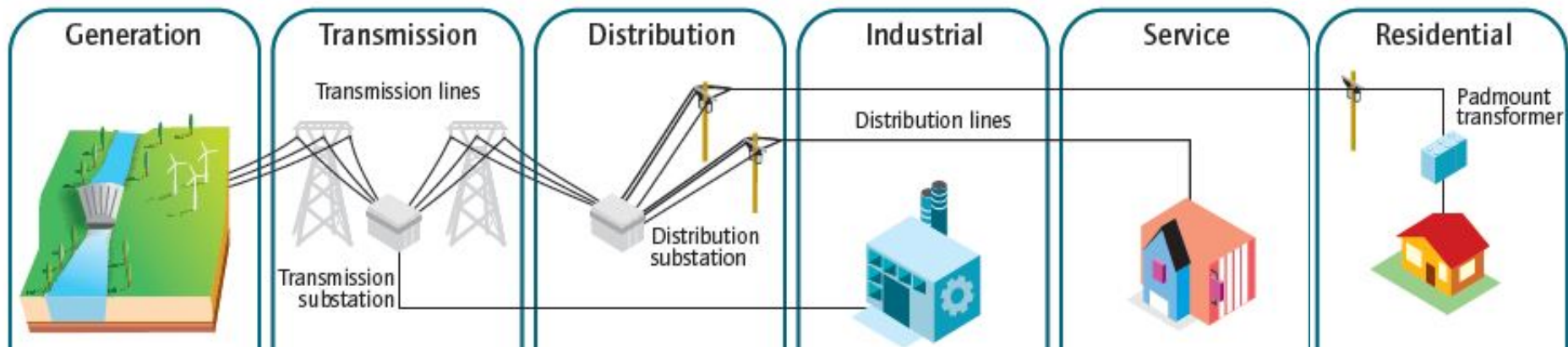
# What is North St. Paul doing NOW?

- ENERGY EFFICIENCY:
  - Rebates
    - Lighting
    - Appliances
    - Renovations
- RENEWABLE ENERGY
  - Wind Power
    - Wind Power sourcing
    - 160 kW Wind turbine
- COLLABORATIONS
  - Green Step Cities
    - Efficient Existing Public Buildings (B3)
    - Efficient Existing Private Buildings (Marketing)
    - Efficient Outdoor Lighting
    - Renewable Energy



# Today's Presentations

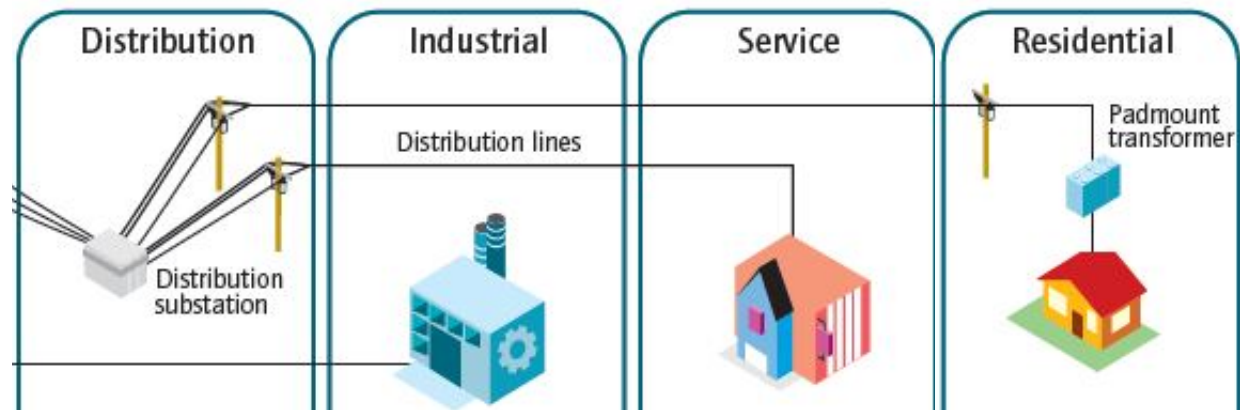
- Energy Efficiency
- Smart Meters
- Demand Side Management (DSM)
- Distributed Generation (DG)
- Net Zero





# Today's Presentations

- Energy Efficiency
- Smart Meters
- Demand Side Management (DSM)
- Distributed Generation (DG)
- Net Zero



- Smart meters;

<http://www.youtube.com/watch?v=HJJ5wd42q9A&feature=youtu.be>