

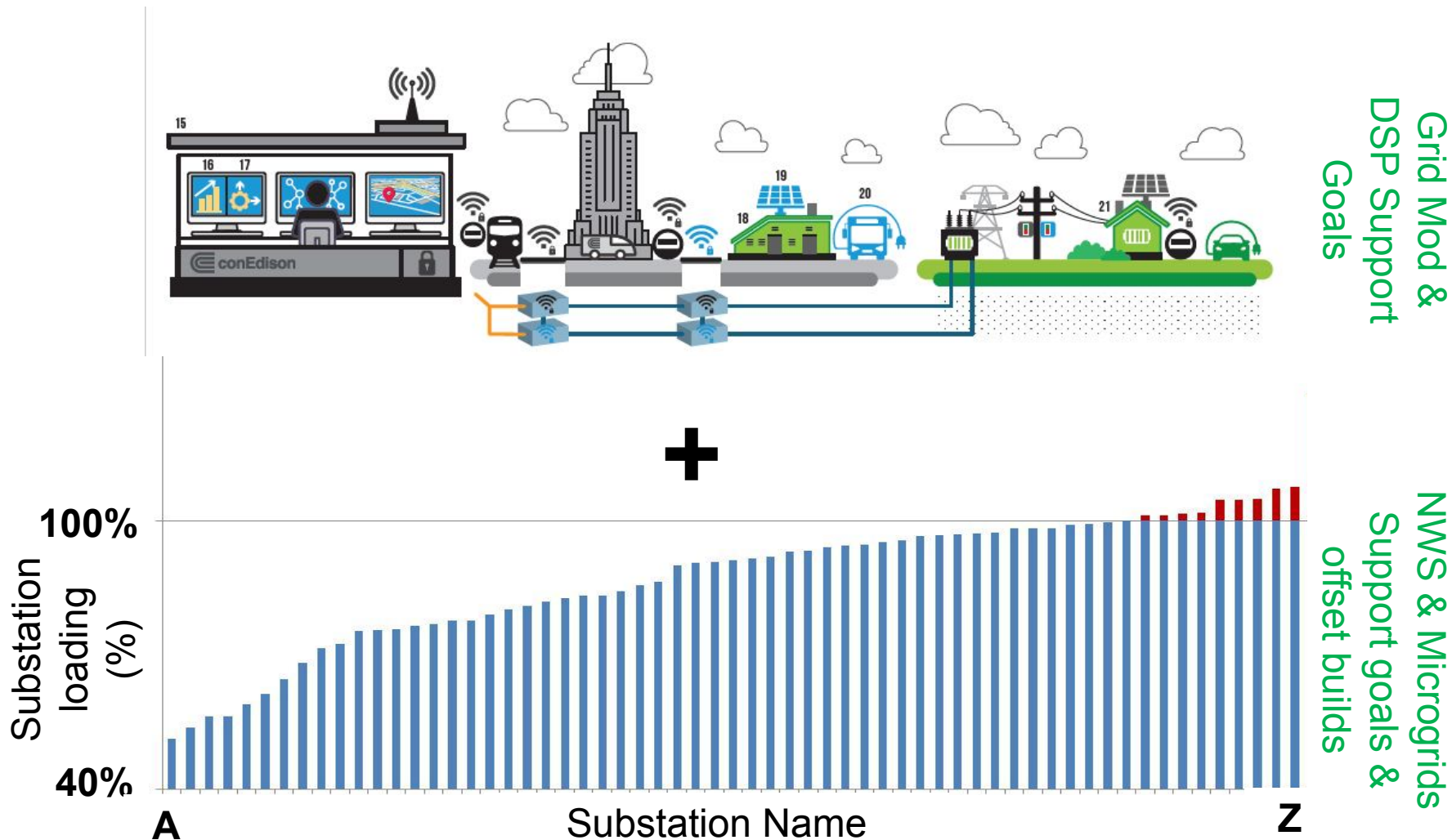


Buildings and Grid Modernization

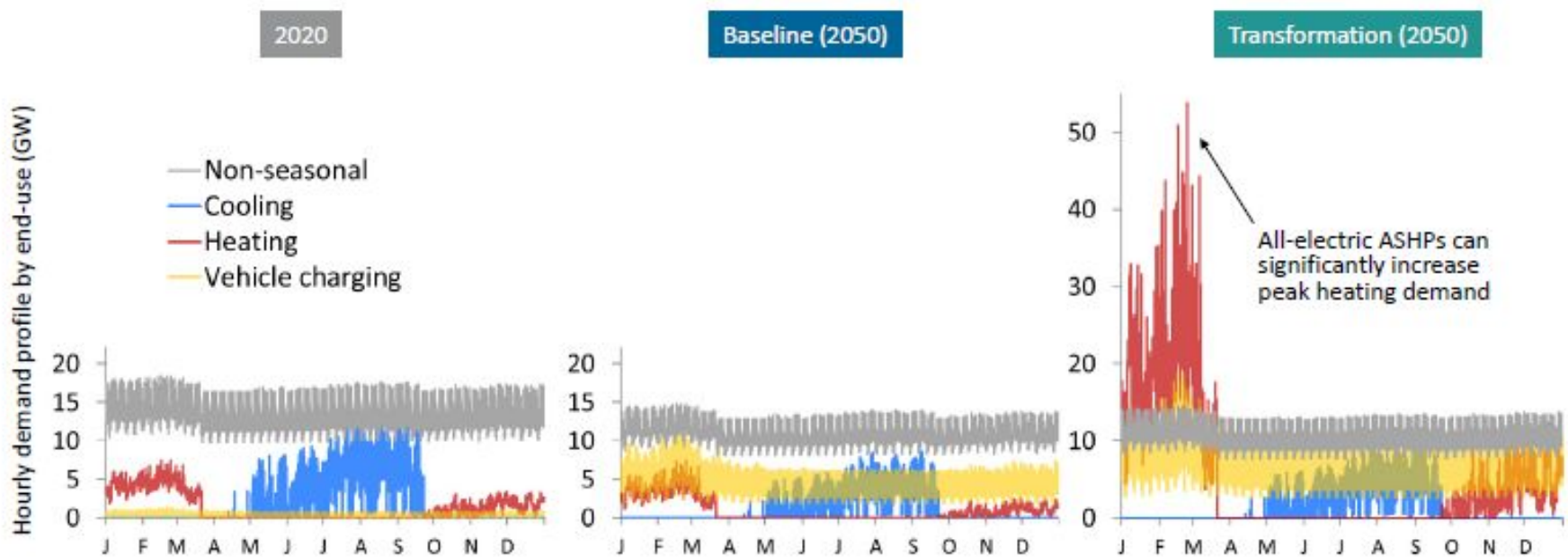
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Under REV, we envisioned modernizing the grid and incorporating DER, NWS & microgrids to defer substation builds and green the grid



However, transformative electrification potentially requires significant electric infrastructure builds



Source: EPRI: Electrification Scenarios for New York's Energy Future 2020

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Coordinated forecasting, planning and implementation optimize policy, affordability and resiliency outcomes for everyone

- Up front benchmarking and forecasting provide a road map to how various buildings will meet goals
 - Identify additional energy efficiency to optimize starting point
 - Evaluate the need for advanced efficiency measures (building envelope, etc.)
 - Forecast anticipated timelines for electrification
- Overlay long term technology assessments (energy storage, heat pumps, etc.) with utility forecasts & plans
- Develop a portfolio customer sited DER, microgrids and state of the art substation builds to meet goals

Regarding Buildings & Grid Modernization to enable a Carbon Free New York, we must first address:

the need to understand when buildings will transfer over to heat pumps and how much electric load will likely be added.

- Delivering 100% renewable electricity decarbonizes existing electrical usage but...
- Electrifying the transportation and heating sources presents a significantly larger opportunity and uncertainty; especially for the iconic NYC skyline
 - How much peak demand will heating electrification actually add and when? Same question for vehicle electrification?
- What role will the gas system play?