

IPPNY State of Opportunities: Powering New Investment - Offshore Wind Panel

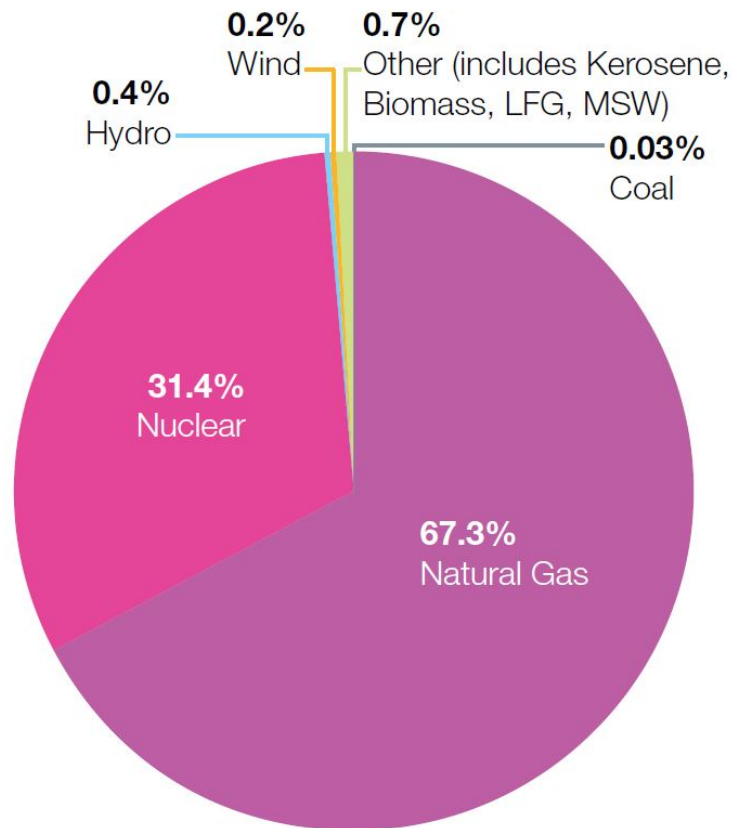
September 14th, 2017

New York City Department of
Citywide Administrative Services



Achieving 80 x 50 requires a transition to a cleaner electric grid

NYC Electric Grid Fuel Mix

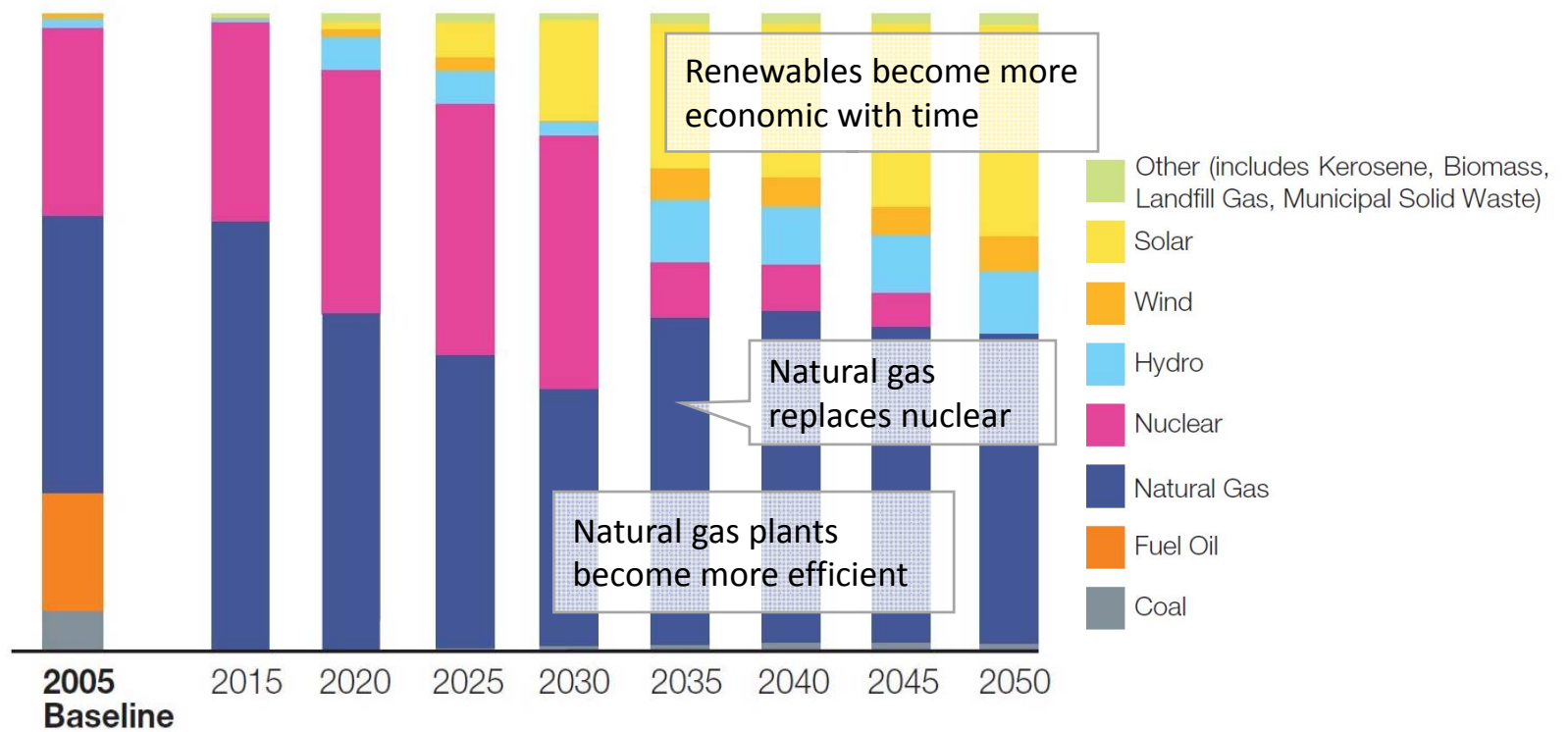


- 30% of citywide GHG emissions come from power plants that generate electricity within and outside the city
- 24 in-city plants serve NYC and are capable of meeting 80% of the city's peak demand
- On an annual basis the in-city plants provide ~50% of the electricity consumed in the city



Under business as usual, GHG reductions driven by changes to the makeup of the electric grid

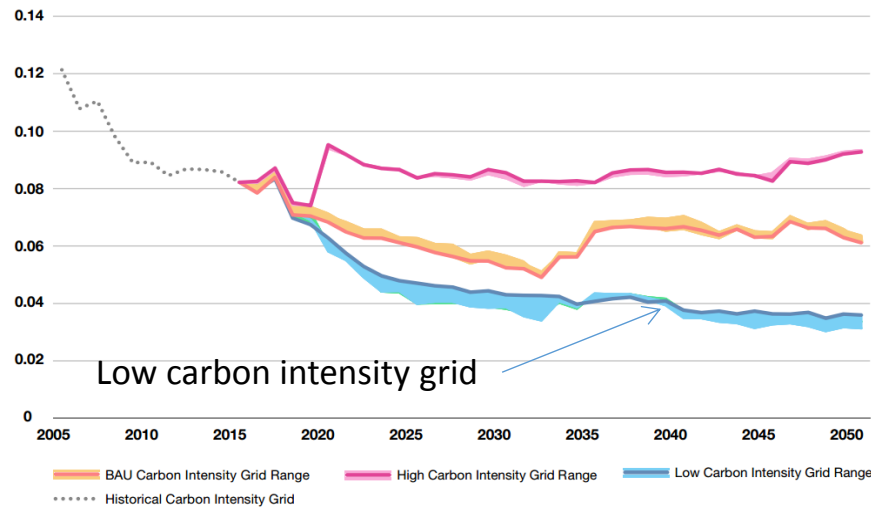
NYC Electric Grid Mix (Business as Usual)



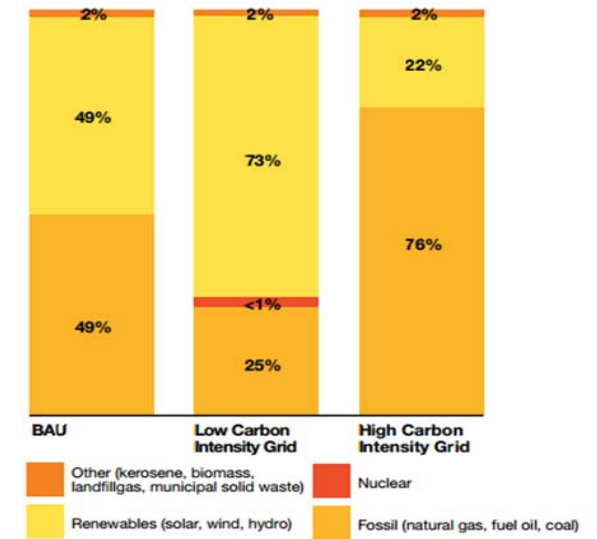


Other sectors will rely on a low-carbon grid to achieve 80 x 50

Future Carbon Intensity of the Electric Grid



2050 Electric Grid Fuel Mix by Scenario



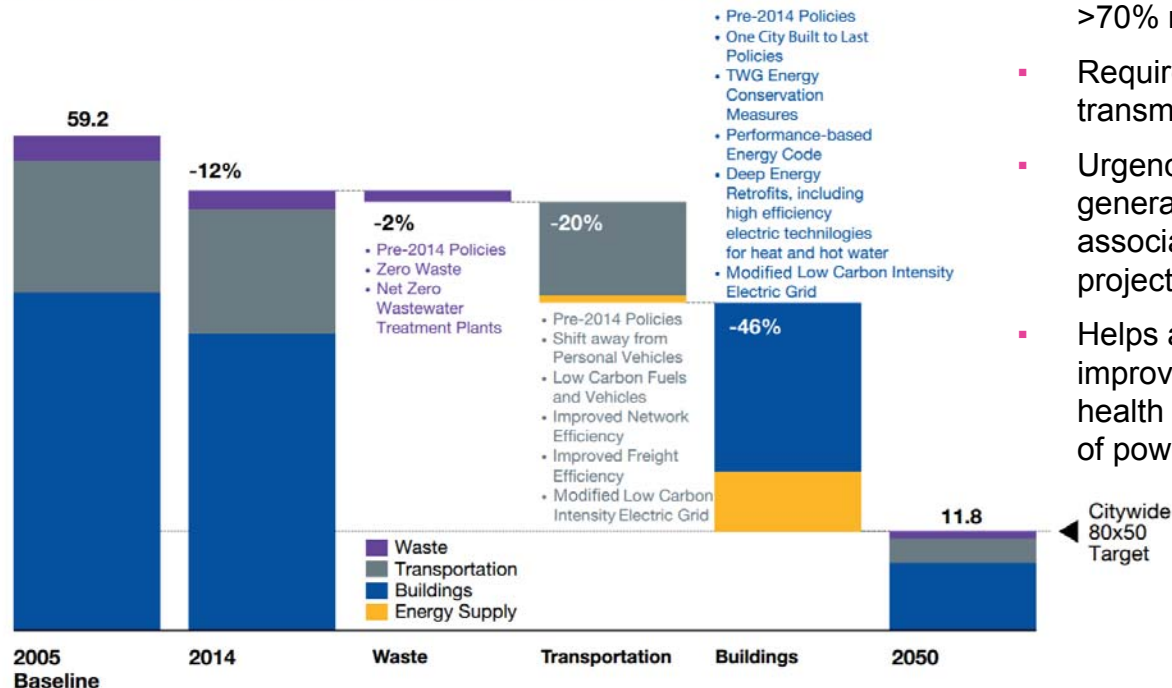
New York City's Roadmap to 80x50, September 2016

- The electric grid is the foundation for citywide emissions reductions as other sectors electrify
- As such, we need for the grid to be as clean as it can be when fuel-switching between direct fossil fuel combustion and electrification
- Modeling indicates we need to stay near the low-carbon intensity grid trajectory



80 x 50 will require aggressive action across sectors

A Roadmap to 80 x 50, in Million Metric Tons of Carbon Dioxide Equivalent (MtCO₂e)



*All percent reductions are relative to the 2005 citywide baseline. *New York City's Roadmap to 80x50*, September 2016

- 80x50 path relies upon a grid with >70% renewable content
- Requires significant increase in transmission capacity to Zone J
- Urgency driven by age of in-city generators and the lead-times associated with transmission projects
- Helps achieve GHG goals but also improves local air quality and public health as well as reliability/resiliency of power supply

80x50 Path

- Modified Low-Carbon Intensity Grid + 1,000 MW hydro by 2020 + 1,700 MW OSW by 2050 + Deep Energy Retrofits (40-60% reductions) + 50-60% electrification of heating/hot water systems + 7 GW in-city solar PV



THANK YOU

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