**** Straw Proposal - Energy/Environment Strategy List ****

Existing Buildings, New Buildings (plus major renovations)

1. ___ % Improvement of Energy Efficiency of ____% of New Commercial , Institutional, and Residential Buildings by _____
   ___ % Improvement of Energy Efficiency of ____% of Existing Commercial, Institutional, and Residential Buildings by _____
   a. Adopt Architecture 2030 goal
      i. All new buildings by 2030 are net zero
      ii. By 2030, existing buildings 30% more efficient compared to 2010 base
   b. ___ % of jurisdictions adopt IgCC or equivalent building code/energy performance standard
   c. Tighten new building standards and incentivize net zero, living building challenge, etc.
   d. Net Zero Commercial Buildings: _____% of new construction by _____
   e. Net Zero Building Incentives/Goals
   f. Ecodistricts
   g. ___% of jurisdictions implement commercial building benchmarking requirements
   h. 90% of jurisdictions disclose energy performance of all government buildings
   i. Financing initiatives (green bank, revolving funds, credit enhancement)
      i. ___% of jurisdictions implement a PACE Financing program
   j. Ramp up existing building retrofits (require that retrofits over ___ meet ___ energy performance standard)
   k. __% of jurisdictions adopt energy efficiency goals for their facilities/operations (e.g., Better Buildings Challenge – 20%)
   l. ____ existing buildings upgraded using energy performance savings contracts or PACE
   m. Reduce emissions from heating and cooling systems
      i. Convert ____ % of heating systems to lower emitting technology (fuel switch and efficiency increases)
      ii. _____ new geothermal systems installed by _____
   n. Implement building retro-commissioning
   o. Energy efficient appliances, HVAC systems
   p. Green leasing
   q. Green purchasing
   r. Energy education initiatives/programs to address behavior and promote conservation
      i. Community energy challenges
   s. Encourage/incentivize new energy efficiency program ideas, such as in-home displays linked with smart meters, dynamic/TOU pricing, disaggregation by appliance

Public and Private Built Infrastructure

1. _____ % reduction in energy consumption by improving efficiency of public and private infrastructure
   a. Increase efficiency of outdoor lighting (convert street lights and other outdoor lights to LED)
   b. Energy Grid 2.0 – explore possibilities for improved grid management to increase efficiency, customer participation and demand flexibility with state regulators, PJM, utilities.
   c. Solar + storage for critical facilities / low emissions public purpose microgrids
   d. Urban heat island reduction – tree planting, cool roofs, cool pavements, green streets

2. Transit and highway agencies, and airports achieve ____ % efficiency improvement by _____
    a. Replace all outdoor, tunnel, and station lighting with high efficiency products
    b. Install wayside storage to harvest braking power at _____% of possible locations
3. All water and wastewater utilities cover 30% of native load using on-site generation
    a. Solar by _____
    b. Biogas CHP
    c. Fuel cells
4. Increase alternative energy generation in all industrial enterprises, including drinking water & waste water utilities
    a. Water utilities deploy renewable systems to power ____% of water pumping
    b. Install renewable energy generation (hydro turbines) inside water pipes.
5. Water utilities reduce energy consumption ___% by ___
    a. Water utilities deploy waste heat recovery in sewer system
    b. Decrease the leakage rate of the water distribution system
    c. Increase the efficiency of water pumping by ___%

Efficiency of Energy Generation (including transmission/distribution (T&D)

1. ____% reduction in emissions from energy generation, transmission, and distribution.
2. Full implementation of the federal Clean Power Plan
    a. Increase efficiency of power plants
    b. Decrease the emission rate of the existing power generation sector
        i. Switch to cleaner fuels
        ii. Phase out coal use at the local coal plants by 2030
        iii. Invest in expanding natural gas supply infrastructure to existing plants
        iv. Existing nuclear plants near the region install additional units
        v. Increasing the on-site renewable generation
    c. Increase renewable purchases
3. Increase the efficiency of the generation and T&D system by ____%
4. Decrease the emissions rate of the natural gas transmission and distribution system
    a. Reduce methane leaks from natural gas pipelines. Achieve ____ % reduction by _____.
5. Increase deployment of clean high efficiency CHP by ____ by ____
    a. Install _____ new District Energy Systems to serve _____ load
    b. Invest in expanding natural gas supply infrastructure to serve new plants
    c. Invest in microgrids
6. Increase Renewable Portfolio Standards (RPSs) to _____
7. Increase Green Power Purchase to _____
8. _____ # of commercial and residential accounts switch to 100% green power by _____
9. Increase Solar PV to _____ installed systems or _____ total MW by _____
10. EV charging infrastructure connected to solar, and V2G
11. Incentives for residential solar + batteries/EVs
12. Increase Solar Thermal to _____
    a. Encourage Thermal RECS (TRECs)
13. Increase deployment of fuel cells to serve _____% of _____
14. Explore viability of carbon sequestration at coal plants in the region