

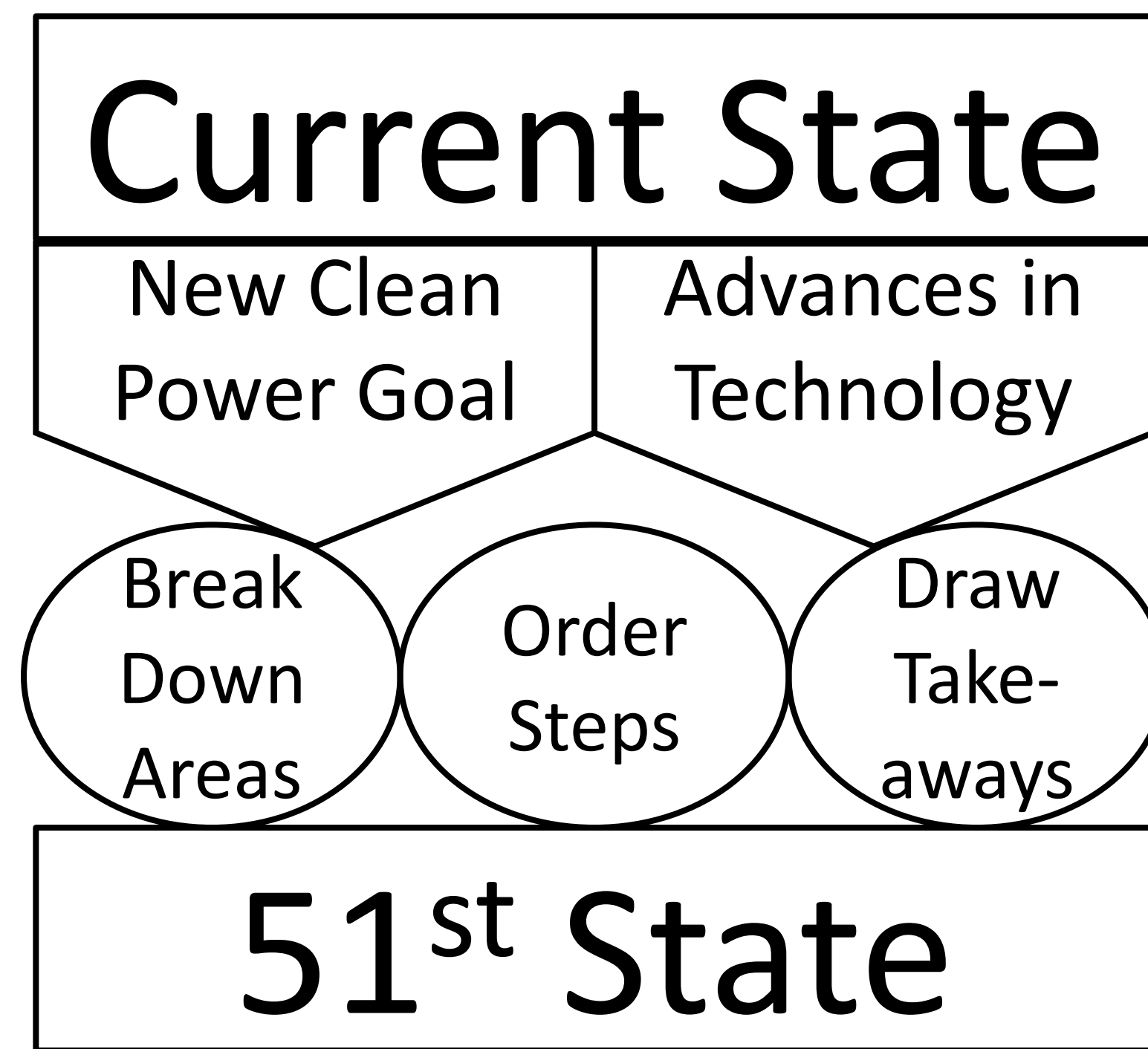
# Transformation to the 51<sup>st</sup> State:

Incorporating New Technologies and Incorporating New Goals

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## Abstract

The 51<sup>st</sup> State sets forth the challenge to imagine what an electric system would look like unconstrained from any existing tethers. This paper is meant to serve as a connection between this envisioned future state and the currently existing grid set-up. The impetus for an energy grid re-design comes from two forces of a new goal of clean power and advances in technology. The electric grid will be called upon to make a significant contribution to greenhouse gas reductions. Advances in technology both allow for and necessitate this re-design. It is now possible to generate electricity at significantly reduced emissions levels, vast amounts of information can be shared between different grid entities, and new devices exist to measure and regulate the different components of distribution. Combined they provide reason and capability to re-design the electric grid. This change can be mapped out by breaking the electric grid system down into 6 areas, order the steps, and draw take-aways. The outcome is meant to result in a conversation on what tangible and practical actions can be taken in the real world.



## Pathway to 51st State

