There's a lot of discussion about the substance of climate policy today. That's obviously critical, but we also need to think about the procedural and institutional issues involved in making climate policy. For instance, we need to think about how to divide authority between the states and the federal government. I thought it would be helpful to pull together some of the ideas that others (as well as I) have been discussing. Having a brief compendium of governance principles could help crystalize some of that discussion.

A larger effort along these lines should be considered. The American Law Institute (ALI), a body of distinguished judges, lawyers, and scholars, issued a lengthy document on principles of corporate governance. A similar effort could be usefully undertaken regarding climate governance, whether by the ALI or some other institution.

General Principles

1. **Climate Science.** Climate science has clearly established that climate change is real, harmful, and caused by humans. The federal government should support further research to help establish a basis for policy, especially regarding emission reduction scenarios, localized impacts, and geo-engineering.
2. **Uncertainty.** Climate policy should take into account uncertain or low-probability but high damage outcomes, as well as most likely scenarios.
3. **Transparency and accountability.** Public law principles of transparency and accountability, which are embedded in administrative law, should govern implementation of environmental laws.
4. **Vulnerable populations.** Climate policy should take into account the risk of harm to vulnerable populations as well as average outcomes across the entire population. Special efforts should be made to obtain input from vulnerable groups in formulating policy and to ensure that policies do not amplify existing inequalities. For instance, the poor are among the most vulnerable to climate change because they may have been relegated to high risk areas and lack the resources to respond effectively to increased risk levels.

Mitigation

1. **Federalism and stationary sources**. States should be allowed to impose tougher standards on stationary sources, such as power plants, than those required by federal law, but not weaker ones. Similarly, Congress should authorize states to regulate energy, goods, and services based on the emissions involved in their production, even when the admissions took place outside the states. Emission reductions due to such state regulations should reduce the number of auctioned carbon allowances if a

federal cap-and-trade scheme is utilized. Otherwise, those reductions would merely be countered by increases elsewhere.

2. **Anti-backsliding.** As a protection against political instability of the kind we have seen recently, states and agencies should be prohibited from weakening standards once those are put into place, at least in the absence of extraordinary, compelling needs.
3. **Federalism and power transmission.** Transmission restrictions are a major barrier to renewables development. States should not be allowed to hinder the development of transmission.
4. **Federalism and vehicles.** States should be free to adopt mandates for zero-emission vehicles. Current federal law should be modified so that California would no longer need federal approval for stricter fuel efficiency standards.
5. **Grid integration.** Mandate regional transmission organizations which would operate the grid with greater efficiency and assist the federal government with transmission planning. Regional integration will make it easier to accommodate much higher reliance on renewable energy.
6. **Long-term planning.** Jurisdictions should set binding reduction targets accompanied by modeling of how those targets might be achieved. Given the potential for unexpected technological or economic developments, it is important to avoid infrastructure or technology lock-in where possible.
7. **A climate super-mandate.** Every federal agency should have carbon-reduction as one of its goals and should be required to minimize emissions unless doing so would substantially impair its other statutory objectives.
8. **Innovation.** Because innovation, particularly at the research stage, is a public good, it makes sense for government to financially support it at the largest available scale, meaning the federal government. States may choose to top up federal funding in areas of special interest to them.
9. **Enforcement.** Regulations don't enforce themselves. And as the Trump Administration and many state governments have shown, government enforcers aren't always diligent. Citizen suits are an important backstop. They should be be authorized by law, and standing should be broadened to the fullest extent allowed by the state and federal constitutions.
10. **International standards**. Formal treaties are one way to incorporate international standards into U.S. law, but they are increasingly difficult to achieve given the supermajority requirement for ratification in the Senate. As in the area of international trade, passing legislation incorporating those commitments can be a more feasible alternative.

Adaptation

1. **Local funding.** In general, it's fair that people who benefit from a project should pay for it. Such requirements also eliminate the temptation of promoting "pork barrel" projects because other people are paying for them. Some exceptions are considered below.
2. **Exceptions to local funding.** Funding by the people who did the most to create the problem – large carbon emitters – may sometimes be a fair alternative to beneficiary funding. Another factor is whether the particular beneficiaries are economically disadvantaged compared to the general taxpayer. Finally, projects may have benefits for others besides the local beneficiaries, in which case the cost should ideally be spread.
3. **Local control.** Generally, local populations know the most about the problems their areas face, and they are in the best position to decide for themselves on the tradeoffs between project costs and benefits.
4. **Exceptions to local control.** As with local funding, there are exceptions. Sometimes adaptation measures have spillover effects. For instance, flood control measures in one area may increase flood risks elsewhere. The federal government may also want to mandate minimum standards of safety, including development restrictions in hazardous areas.
5. **Mainstreaming adaptation planning.** Legislatures should mandate climate resilience statements for infrastructure. Those statements should consider both mid-level and high-end warming scenarios for projects with lifespans over 25 years.
6. **Statutory review.** A number of statutes and legal doctrines are based on an assumption of long-range stability in conditions, absent human disturbance. These statutes should be reviewed by Congress and revised to correspond to what has been called the "end of stationarity," meaning that the new normal will be change rather than stability.

Geo-engineering

1. **Solar radiation management.** Solar radiation management can take the form of adding substances to the atmosphere, mirrors in space, or more exotic possibilities. Experiments should be allowed to determine the feasibility and side-effects of these techniques, subject to safeguards. Solar radiation management should not be implemented as a means of controlling temperatures in the absence of international agreement.
2. **Carbon sinks.** Atmospheric carbon is removed by plants and stored in them, in soils or in the ocean. Preserving and expanding carbon sinks should be a priority in land management.

I’m sure that these principles could be improved and elaborated. And no doubt there are others to be added to the list. But at least it’s a starting point.