

# Necessities

## Universal Guiding Principles

1. We always need others to be responsible for our lives, and we always have responsibility for the lives of others.
2. Democracy requires housing, food, water, energy, and information to function.
3. You can earn necessities, and they can't be taken away.
4. Sufficient resources and information exist to support our needs.
5. Investment in a person always precedes the returns they generate.

## Policy Conception

1. Outgrowing the public debt and the effect of negative externalities on the economy and environment mandate addressing the areas of life we need to survive and participate.

## Housing Guiding Principles

1. Housing is our access point for all our other needs.
2. People contribute to and benefit from the communities of which they're a part.
3. When accounted for with economic accuracy, housing is a consumable asset, not an appreciable asset.

## Housing Research Outline

1. Housing status
  - a. <https://www.jchs.harvard.edu/many-renters-are-burdened-housing-costs>
    - i. What percentage of household income are renters paying for their housing in different U.S. geographies?
  - b. <https://www.jchs.harvard.edu/son-2019-affordability-map>
    - i. How affordable are mortgage payments for housing in markets throughout the country?
  - c. <https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness-report/>
    - i. How prevalent is homelessness across the United States?
    - ii. How have states and locales approached homelessness?
    - iii. Which groups of people and geographies are disproportionately represented in the homeless population?

2. Housing need
  - a. [https://www.jchs.harvard.edu/sites/default/files/Harvard\\_JCHS\\_State\\_of\\_the\\_Nations\\_Housing\\_2019.pdf](https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_State_of_the_Nations_Housing_2019.pdf)
    - i. What relationships among income, housing/land prices, rents, occupancy levels, interest rates, permitting, and new construction volume inform housing/rental supply and affordability?
    - ii. How much housing and rental construction will be required to keep pace with household and geographic trends and the need to address homelessness and affordability in cost-burdened markets?

## Food Guiding Principles

1. We have to assume that the food supply is sufficient for the necessary return on investment for consumption that will solve for the problems we have such that human existence propagates into the future (at a more enjoyable level than today).
2. Information transfer from humanity currently to future producers and consumers.
3. We want to make the energy that generates food production as immediate to the time period as its consumption.
4. The food chain is a reflection of energy flows that constitute the propagation of life.
5. Breaks in the food chain will occur due to changes in the environment. This will be a signal of required innovation rather than necessarily a long-term detrimental outcome.
6. Return on investment is a nonlinear concept requiring consideration of multiple, intersecting variables, which, prior to their linkage, were implicitly interconnected.
7. The food supply is indissolubly tied to the supply and market of water.

## Food Research Outline

1. Food status
  - a. <https://www.ers.usda.gov/webdocs/publications/94849/err-270.pdf?v=963.1>
    - i. What percentage of the U.S. households did/did not have access to enough food for all members to maintain an active, healthy lifestyle?
    - ii. What portion of food insecure households participate in programs to supplement food access?
    - iii. What does the average household spend per individual per week on food, and how does this compare by household makeup and food insecurity status?
  - b. [http://thefoodtrust.org/uploads/media\\_items/access-to-healthy-food.original.pdf](http://thefoodtrust.org/uploads/media_items/access-to-healthy-food.original.pdf)

- i. How much of the U.S. population does not have access to nutritious food?
  - ii. How far away are average U.S. households from full-service grocery stores or markets with comparably nutritious foods?
  - iii. What physical, financial, and cultural barriers exist to healthy eating?
- 2. Food need
  - a. <https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/>
    - i. Which areas of the country have either low income or low access to nutritious foods?
  - b. <https://www.vox.com/a/explain-food-america>
    - i. How are varieties and quantities of food production and consumption distributed in the U.S.?
  - c. <https://www.worldhunger.org/hunger-in-america-united-states-hunger-poverty-facts-2018/>
    - i. How many Americans can't afford a sufficient amount of healthful foods?

## Water Guiding Principles

- 1. Water is a prerequisite for life.
- 2. The water cycle contributes to and is disrupted by our behaviors and consumption.
- 3. The lack of a scarcity-based price signal for water distorts our allocation of supply and hasn't translated into the costs of products generated by this allocation.

## Water Research Outline

- 1. Water status
  - a. [http://uswateralliance.org/sites/uswateralliance.org/files/Closing%20the%20Water%20Access%20Gap%20in%20the%20United%20States\\_DIGITAL.pdf](http://uswateralliance.org/sites/uswateralliance.org/files/Closing%20the%20Water%20Access%20Gap%20in%20the%20United%20States_DIGITAL.pdf)
    - i. How many Americans lack access to water and sanitation services?
    - ii. What inhibits access to clean water and sanitation?
    - iii. Who is primarily affected by disparities in the availability of clean water and sanitation services?
  - b. <https://www.nap.edu/read/11241/chapter/2#3>
    - i. Where does demand for water outstrip supply?
    - ii. What uses of water and population distribution trends present challenges for current and future water allocation?
- 2. Water need
  - a. <http://www.urbanwaterslearningnetwork.org/wp-content/uploads/2019/05/UNC-Clean-Water-Access-Challenges2017.pdf>

- i. Which areas of the U.S. lack access to clean water and adequate water and sanitation infrastructure?
- ii. Where have water supplies been depleted or contaminated?
- iii. In which communities has affordability reduced access to water and sanitation services?
- b. <http://www.fao.org/3/a-i7959e.pdf>
  - i. How will global population growth and food consumption influence distribution and supply of freshwater?
  - ii. What impacts will climate change and alterations to the surface and groundwater recharge rate and water cycle yield on water supply?
  - iii. How will pollution/contamination strain water systems?

## Energy Guiding Principles

1. The sun is the primary source of energy for the Earth.
2. Energy can be neither created nor destroyed, and its transformation and interaction within our environment result in changes to temperature and the atmosphere whose costs are not wholly reflected in energy markets.
3. Energy production, storage, and transmission methods should align with each other and consumption.

## Energy Research Outline

1. Energy status
  - a. <https://www.eia.gov/energyexplained/electricity/electricity-in-the-us-generation-capacity-and-sales.php>
    - i. How is electricity generated in the U.S.?
    - ii. How much electricity is generated?
    - iii. How much renewables capacity does the U.S. have?
    - iv. How much electricity is sold to consumers?
  - b. <https://www.eia.gov/energyexplained/electricity/delivery-to-consumers.php>
    - i. How does the electrical grid work?
    - ii. What obstacles does the electrical grid face?
  - c. <https://ourworldindata.org/energy-access>
    - i. What percentage of American households have access to electricity?
  - d. [https://www.aceee.org/files/proceedings/2016/data/papers/11\\_326.pdf](https://www.aceee.org/files/proceedings/2016/data/papers/11_326.pdf)
    - i. How affordable is electricity for Americans in different parts of the country?
2. Energy need
  - a. <https://www.infrastructurereportcard.org/wp-content/uploads/2017/01/Energy-Final.pdf>
    - i. What components of U.S. energy infrastructure require replacement or upgrades to continue functioning and to support the evolution of production, transmission, and distribution to renewable energy sources?

- b. <https://pubs.rsc.org/en/content/articlelanding/2018/ee/c7ee03029k#!divAbstract>
- c. <https://www.theguardian.com/environment/climate-consensus-97-percent/2018/mar/26/study-wind-and-solar-can-power-most-of-the-united-states>
  - i. What mix of renewable energy production sources and storage capacity would be needed to satisfy U.S. energy consumption?

## Information Guiding Principles

1. Learning, communication, and participation in the economy and political system require reliable, affordable access to high-speed internet.
2. Information asymmetries create economic opportunity and outcome disparities and misconstrue the relationship between productive capacity and productive output.

## Information Research Outline

1. Information status
  - a. <https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf>
    - i. How many Americans do not have access to high-speed internet?
    - ii. How many Americans cannot afford high-speed internet?
    - iii. Which areas within the U.S. are underserved or do not have sufficient infrastructure to support high-speed internet?
    - iv. Why do portions of the population who live within areas with high-speed internet service not subscribe to service at higher rates?
2. Information need
  - a. <https://fas.org/sgp/crs/misc/RL30719.pdf>
    - i. What areas require additional capital investment or education to expand high-speed internet access and adoption?
    - ii. How does internet adoption and use vary along economic, education, and demographic lines?
    - iii. What deficiencies persist in funding, regulation, and market competitiveness that reduce access or quality of high-speed internet in communities around the United States?