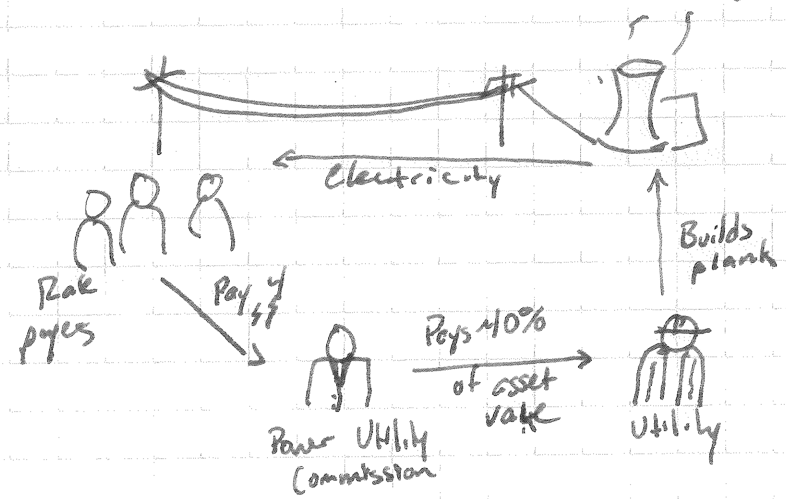
NUCE 2122 - Module 2

May 15, 2025

Regulated Utilities

- Do not make *any* profit
- Regulated monopoly
- argues with public utility comission about what to build

- Plants are built on a RISE BASIS.
  - ↳ Utilities don't get paid until the plant is built.
  - ↳ Then, prudent costs are factored into the rate basis, which the utility gets a fraction of.



STRUCTURE OF REGULATED MONOPOLY

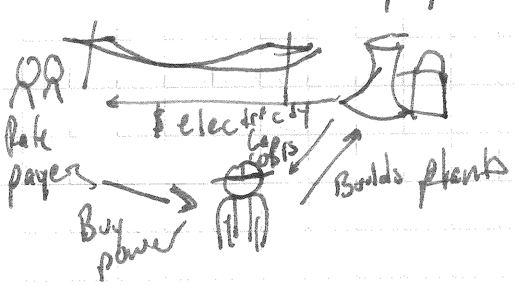
ROI Income

- Utilities get paid by a percentage of the value of the plants it builds.
- Plants depreciate over time, ROI decreases

- ROI can affect purchasing decisions
  If part is cheap → PUC forces it to be expensed
  More money → PUC pays more

Merchant Plant Economics

1. How you'd expect a company to run. Plants are capital expenditures, make money through rates, has no monopoly.



Many Utilities are hybrids. (Duke Energy)
(they operate in both types of market)

NUCE 2122 - MODULE 2

May 15 2025

NRC Licensing Changes

Before

Const. Permit → Construction

While construct → Op license → operation

Huge problems, goal post moving

New

Early Site Permit
↓
Combined Permit → Constr → ITAAC verif → Operation
↑
Design Cert

Inspections
Tests
Acceptance
Analysis Criteria