

# AN INTRODUCTION TO REGULATION

## PROF. ARDEN ROWELL

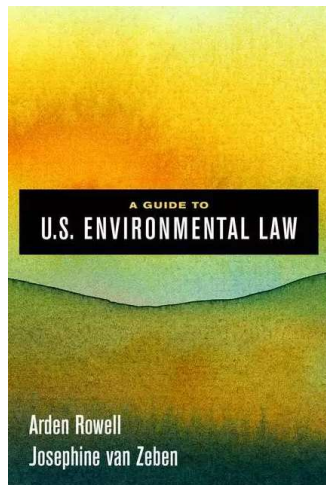


Professor of Law, UIUC

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Before joining the Illinois faculty in 2010, Professor Rowell was a Bigelow Fellow and Lecturer in Law at the University of Chicago Law School, from which she also received her J.D. Professor Rowell has also taught at Harvard Law School, Duke Law School, and the University of Chicago Law School, and has done research details at Oxford University, the University of Wageningen, and the Environmental Protection Agency.



# KEY POINTS

AN INTRODUCTION TO LAW AND REGULATION  
FOR SUSTAINABILITY ENGINEERS



- (1) Why can it be helpful to know something about law and regulation?*
- (2) What do you most need to know?*
- (3) How can—and should—engineers interact with law and regulation?*

# WHAT IS LAW?

- **Law is a social technology used to regulate human behavior.**
  - Individual laws work within a system of rules, procedures, and institutions, created by a group of key actors. This is the “legal system.”
    - Most law is solutions-oriented: it is trying to change human behavior.
    - Different types of law try to achieve different things.
    - Environmental law seeks to change people’s behavior to create better environmental impacts.



## WHY SHOULD ENGINEERS CARE ABOUT THE LAW?

Engineers have many opportunities to \_\_\_\_\_ the law.  
verb



# WHAT IS THE RELATIONSHIP BETWEEN ENGINEERS AND LAW?

Engineers have many opportunities to follow the law.  
verb



# WHAT IS THE RELATIONSHIP BETWEEN ENGINEERS AND LAW?

Engineers have many opportunities to

- inform
- follow
- affect
- respond to
- improve
- anticipate
- contribute to
- advise

the law.



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# WHAT DO YOU MOST NEED TO KNOW ABOUT THE LEGAL SYSTEM?

## (1) Key actors

- *Who does what?*

## (2) Basic types of law

- *What are they?*
- *How can they change?*

## (3) Law + engineering = ?

- *How engineers do (and should!) interact with law*
- *Your current role*





# KEY ACTORS IN THE U.S. LEGAL SYSTEM

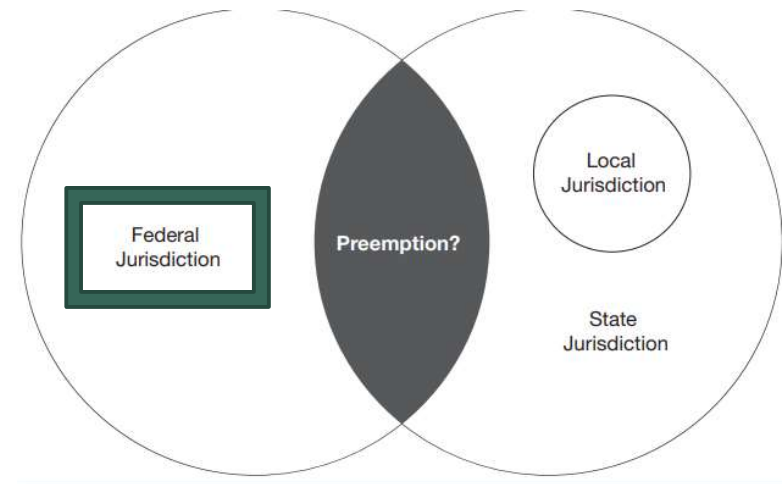
## THE CONSTITUTION

- The structure of the U.S. government and legal system are established in the U.S. Constitution.
  - *The U.S. Constitution is the oldest and shortest national constitution in the world!*
- Unlike most Constitutions around the world, the U.S. Constitution (drafted in 1787) does not explicitly mention “the environment.” It also fails to mention administrative agencies (which are now the main source of U.S. law).
  - *Recognizing the key actors in U.S. law requires more than just reading the Constitution.*



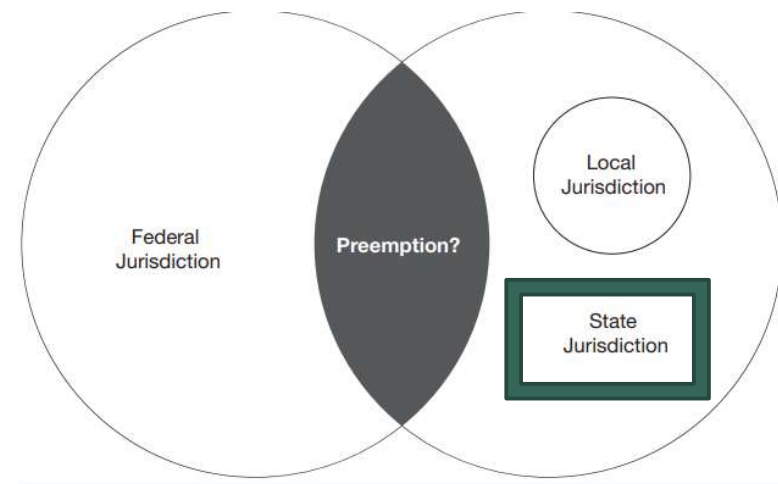
# KEY ACTORS IN THE U.S. LEGAL SYSTEM

## *FEDERAL VS. STATE SYSTEMS*



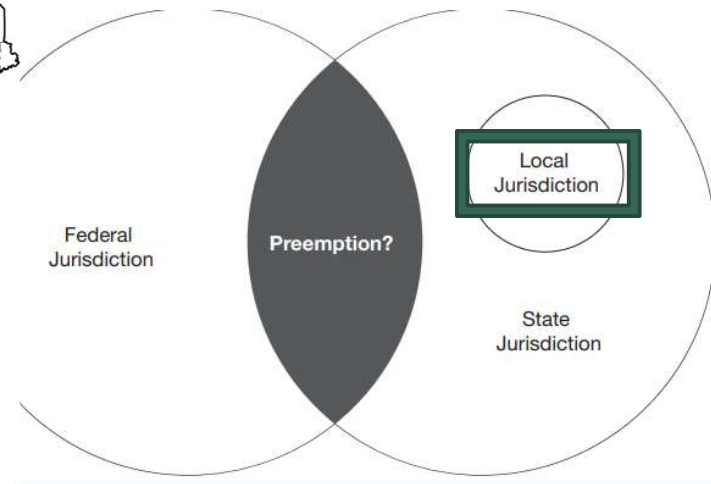
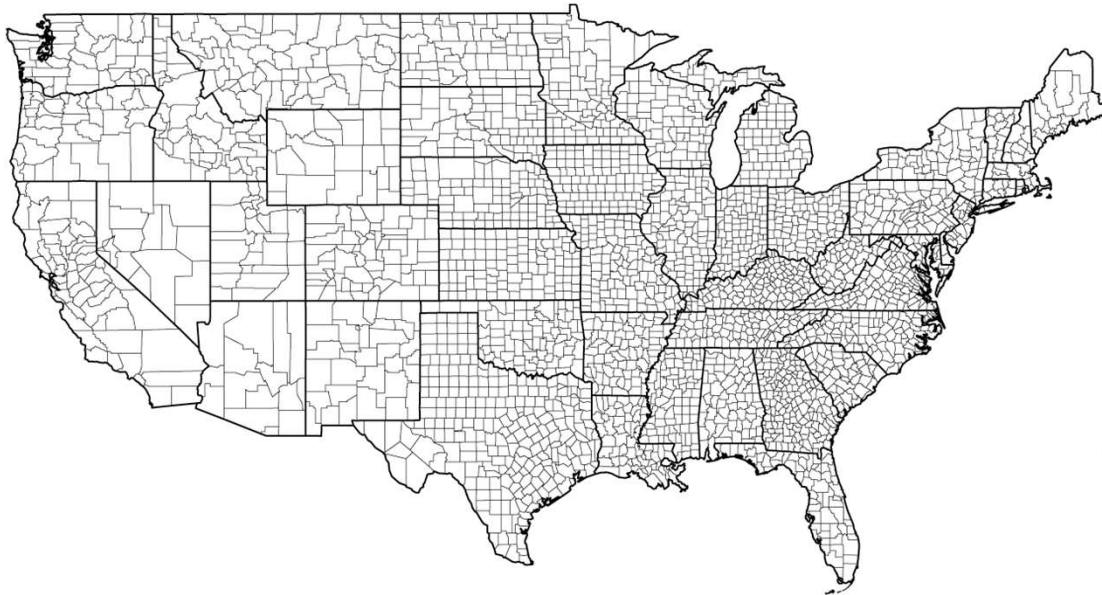
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## *FEDERAL VS. STATE SYSTEMS*



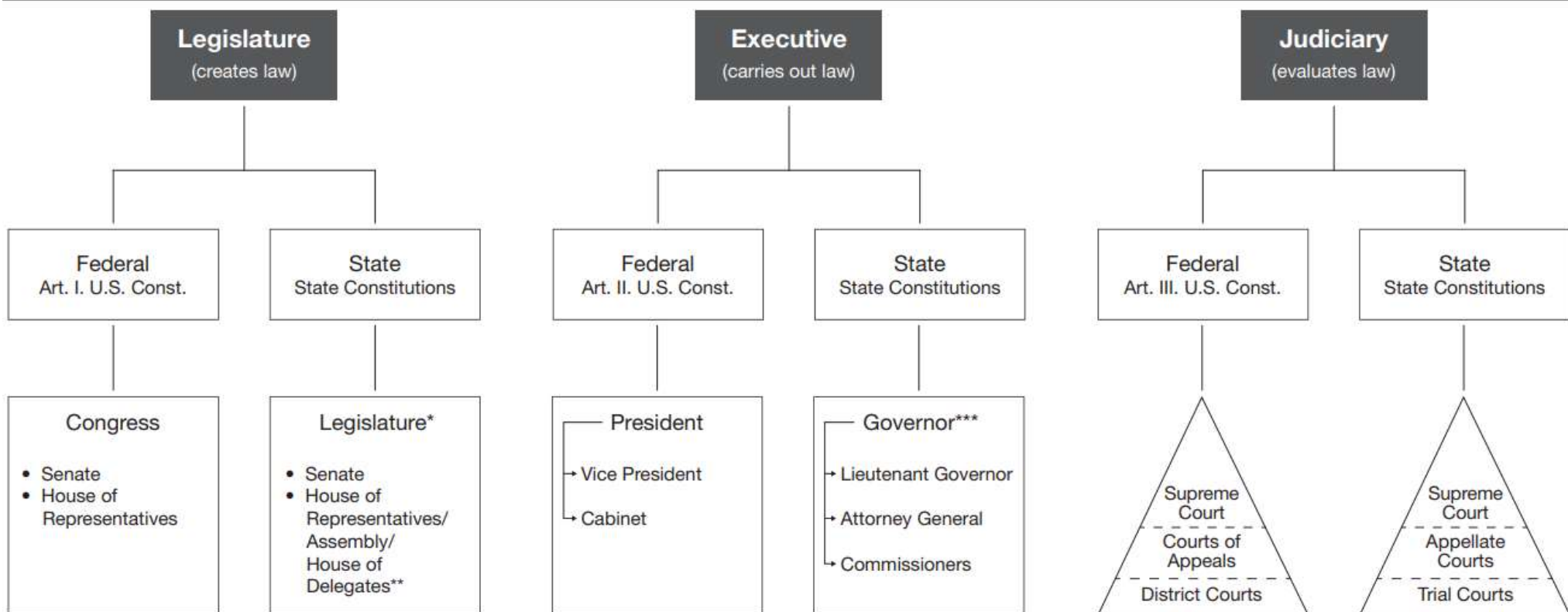
# KEY ACTORS IN THE U.S. LEGAL SYSTEM

## *FEDERAL VS. STATE (VS. LOCAL) SYSTEMS*



# KEY ACTORS IN THE U.S. LEGAL SYSTEM

## LEGISLATIVE, EXECUTIVE & JUDICIAL BRANCHES



# KEY ACTORS IN THE U.S. LEGAL SYSTEM

## AGENCIES

➤ U.S. law is distinctive for its dependence on **administrative agencies**.

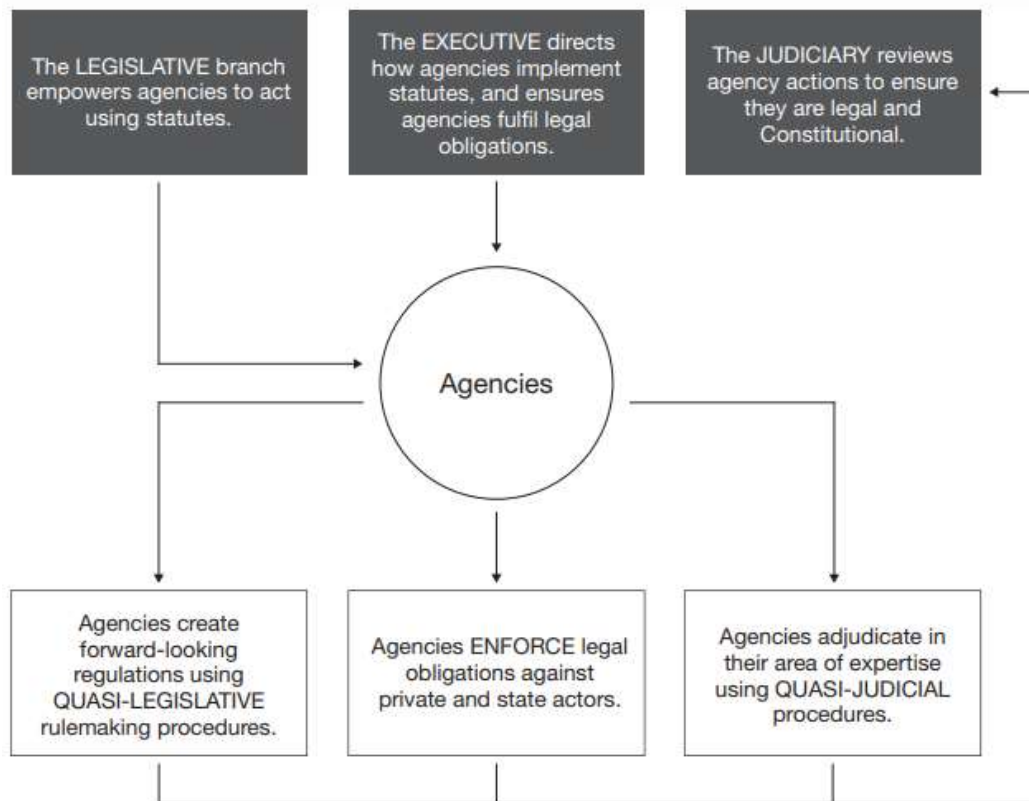
- Agencies (like the Environmental Protection Agency, or EPA) are units of government that don't appear in the Constitution, but which have been created and given power by the other branches.
- Agencies' key advantage is that they rely upon expertise.
- Agencies are now the main source of U.S. federal law.





# KEY ACTORS IN THE U.S. LEGAL SYSTEM

## HOW AGENCIES FIT



- How do agencies fit in with the rest of the U.S. government?
  - (1) The LEGISLATURE empowers agencies.
  - (2) The EXECUTIVE directs agencies.
  - (3) The JUDICIARY reviews agency actions.
- What do agencies do?
  - **Rulemaking** – make forward-looking regulations
  - **Enforcement** – require compliance with legal obligations
  - **Adjudication** – decide about specific cases/licenses/etc.

## KEY TYPES OF LAW

### Legislature

- **Statutes** are laws passed by Congress.

### Executive

- **Executive orders** are legal orders by the President.

### Judiciary

- **Judicial opinions** are laws written by judges.

### Agencies

- **Regulations** are laws written by agencies.



# KEY TYPES OF LAW

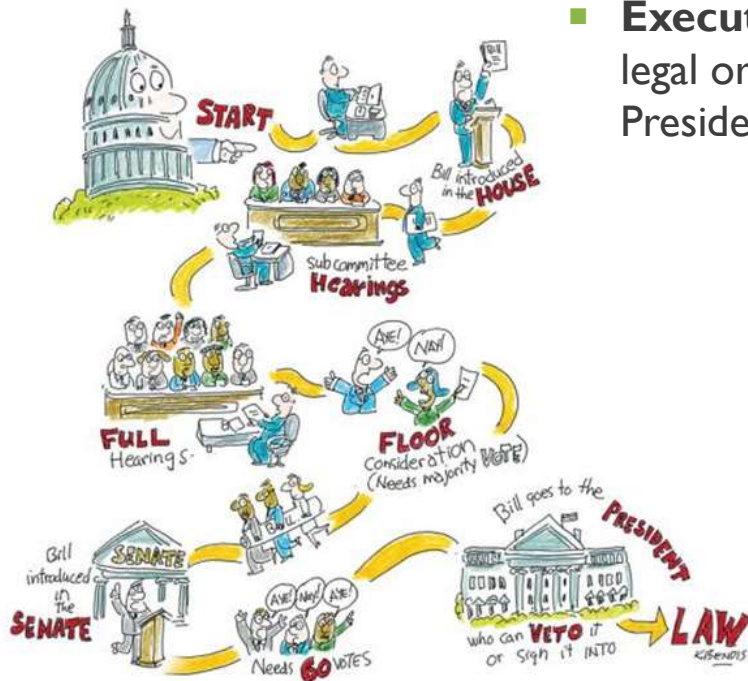
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## Executive

## Judiciary

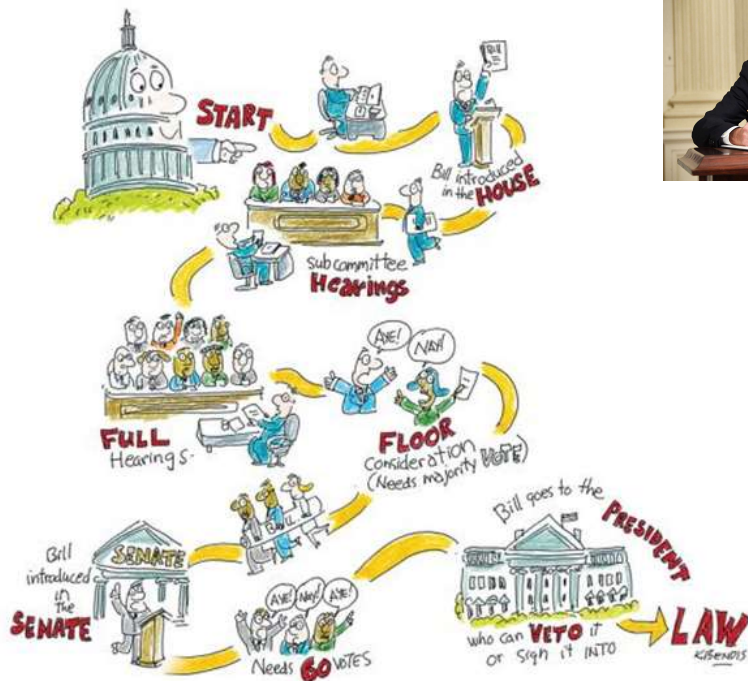
## Agencies

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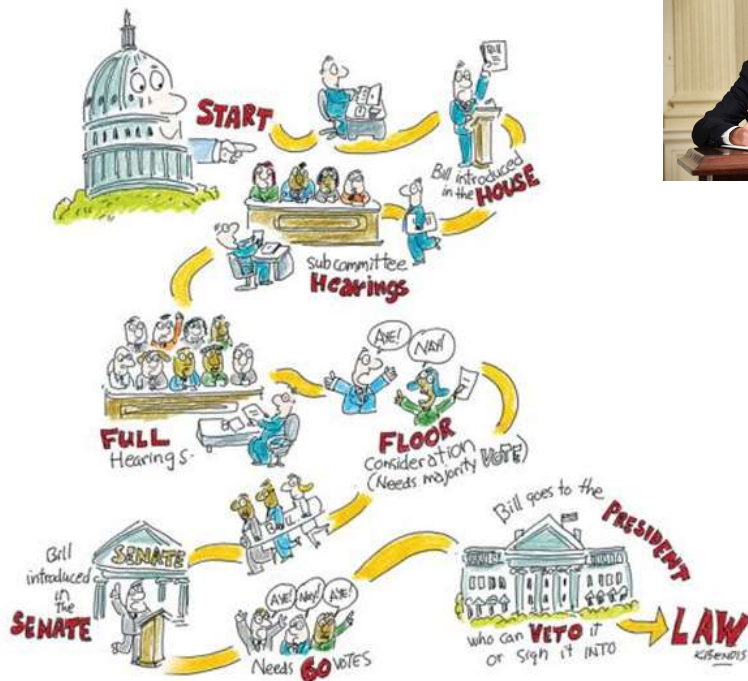
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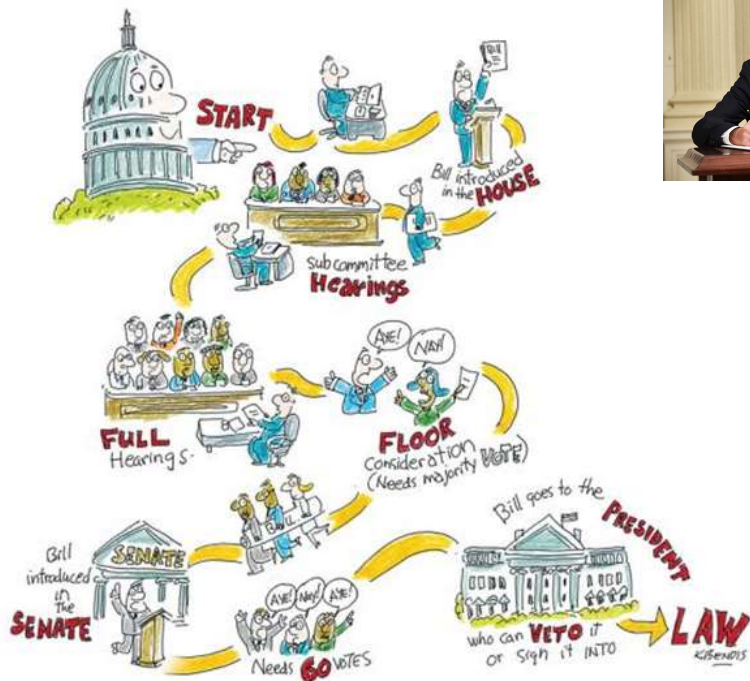


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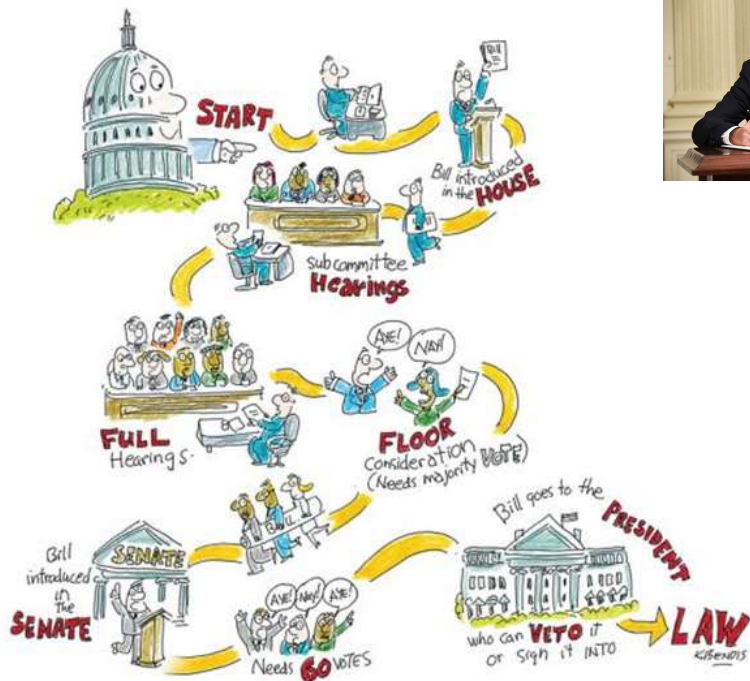
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# KEY TYPES OF LAW

## HOW LAW IS MADE

### Legislature



### Executive



### Judiciary



### Agencies

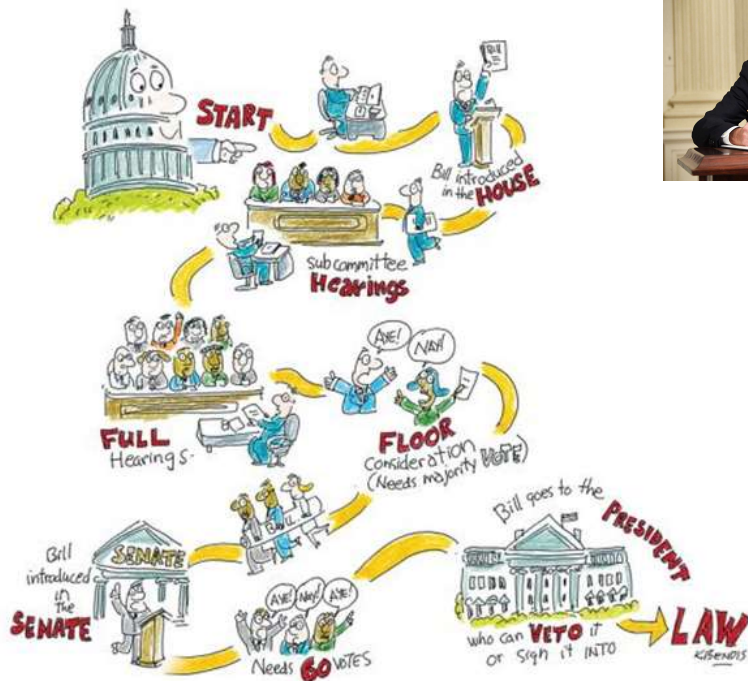




# KEY TYPES OF LAW

## HOW LAW IS MADE – AND HOW IT CAN CHANGE

### Legislature



### Executive



### Judiciary



### Agencies



## KEY TYPES OF LAW

### KEY FEATURES AND TAKEAWAYS

- Sustainability in the U.S. is affected by many types of U.S. law, including law made at federal, state, and local levels; and incorporating statutes, executive actions, judicial opinions, and regulations. Different types of law are made by different key actors, and require different processes to change.



- Common law also affects U.S. environmental law, by “filling in the gaps” between environmental laws as written and the legal principles underlying those laws.
- The effectiveness of U.S. law relies on relationships between federal, state, and local actors. (International law plays a more limited role in U.S. law than in many other systems.)
- Regulations—laws made by agencies—play an important role in U.S. environmental law.

## WHAT DOES ANY OF THIS HAVE TO DO WITH ENGINEERS?

Engineers have many opportunities to

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# WHAT ENGINEERS CAN DO BETTER WITH LEGAL KNOWLEDGE

## Make the Future Better

Understanding how law and regulation works can help you ***predict*** and even ***improve the future***. It can also help you ***see opportunities***.



## Avoid Trouble

Understanding how law and regulation works can help you ***avoid penalties and delays*** and ***understand constraints***.

# WAYS ENGINEERS INTERACT WITH THE LAW

Engineers interact with the law in many ways, including:



- complying with legal requirements
- informing factual disputes in court as expert witnesses
- participating in expert advisory committees, such as at the National Academy of Science, Engineering, and Medicine
- writing scholarship
- securing funding through grants and contracts
- working as public servants in agencies
- making public comments on pending regulation

## EXAMPLE: ENGINEERING IN THE CLEAN AIR ACT

### *MOBILE SOURCES*



- The Clean Air Act, a statute passed by Congress in 1970 and amended in 1990, requires the Environmental Protection Agency (EPA) to issue regulations about mobile sources of air pollution.
- EPA is supposed to set standards “to achieve the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available.”
- Each time EPA issues a new standard, for mobile sources it goes through rulemaking procedures—soliciting public comment. Each time, a key question is what level of emission reduction is achievable using future technologies.

# ENGINEERS' IMPACT ON THE LAW MAKING REGULATORY COMMENTS

- Making comments on pending regulations is a key (but often neglected!) way that engineers can help make the law better.
  - Anyone can make comments. Comments made based on expertise are likely to be more influential.
- How will agencies use comments?
  - Agencies are required to read, consider, and respond to comments.
  - Agencies are not required to treat comments like votes—so the quality and substance of comments matters more than the number of comments made.

The screenshot displays the Regulations.gov website interface. At the top, the header includes the "Regulations.gov" logo with the tagline "Your Voice in Federal Decision Making" and a "SUPPORT" button. Below the header, the page title is "Docket (NHTSA-2023-0022) / Document". A "Comment Period Ends: 13 Days" badge is visible in the top right corner. The main content area features a "PROPOSED RULE" section with the title "Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027–2032 and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030–2035". It notes the rule was "Posted by the National Highway Traffic Safety Administration on Aug 16, 2023". Below the title, there are buttons for "Comment", "View More Documents (126)", "View Related Comments (28.4K)", and a "Share" button. A navigation bar below the main content area has tabs for "Document Details" (selected) and "Browse Posted Comments (28.26K)". The "Document Details" tab is expanded, showing a "Document ID" of "NHTSA-2023-0022-0004" with a green checkmark icon, and "Comments Received" of "28,284" with a "More Details" link. Below this, the "Document Details" section lists "Comment Due Date" as "Oct 16, 2023", "Federal Register Number" as "2023-16515", and "CFR" as "49 CFR Parts 531, 533, 535, and 537". The "Content" section on the right shows the "Action" as "Notice of proposed rulemaking" and the "Summary" as a detailed description of the proposed fuel economy standards. The "Dates" section at the bottom states that comments are requested on or before October 16, 2023, and refers to the "SUPPLEMENTARY INFORMATION" section for more details.

## ENGINEERS' IMPACT ON THE LAW

### *A FEW TIPS ON MAKING GOOD COMMENTS*

1. Determine your area of expertise or interest.
2. Visit [www.Regulations.gov](http://www.Regulations.gov)
3. Search for pending regulations where agencies are asking for your expertise.
4. Write comments about your area of expertise. Begin the comment by stating what your expertise is.
5. Submit the comments on the website.
6. Wait to see what the final rule looks like!



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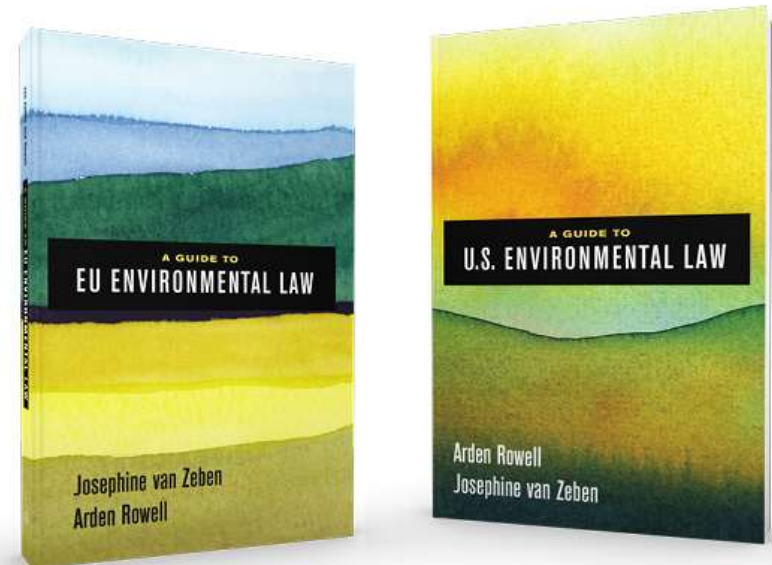
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## INFORMATION & RESOURCES

→ ***The “Environmental Law Guides” series is designed to explain environmental law to non-lawyers.***

*Each book includes:*

1. A description of the legal system (including key actors and types of law)
2. A description of how the law treats important environmental problems (including pollution, ecosystem management, and climate change)
3. Bonus resources for research



[www.ucpress.edu/page/environmental-law-guides](http://www.ucpress.edu/page/environmental-law-guides)



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