Resources for Local Land Use Sustainability—Legal Pathways to Deep Decarbonization

Professor K.K. DuVivier
303-871-6281
kkduvivier@law.du.edu
Access articles at SSRN: http://ssrn.com/author=725005
I. Deep Decarbonization Pathways Projects

II. Role of law and policy in promoting or inhibiting new technologies— *Legal Pathways to Deep Decarbonization in the United States* (2019).

III. Moving Forward With the Legal Pathways—Resources for Policymakers
I. Deep Decarbonization Pathways Projects

• National blueprints for limiting warming to 2°C.
• Incrementalism to transformation.
• 34 OECD countries + China, India, Brazil, South Africa, Mexico.
• **DDPP is a collaborative global initiative** to explore how individual countries can reduce GHG emissions.

• **16 independent research teams** from countries representing 75% of global GHG emissions, including the largest two: China & U.S.

• **Starting in the fall of 2013,** the research teams have developed potential high-level roadmaps or pathways for deep decarbonization of their countries.
Figure 1. Emissions trajectories for energy CO₂, 2010-2050, showing most ambitious reduction scenarios for all DDPP countries. 2050 aggregate emissions are 57% below 2010 levels.
Avoiding emissions dead-ends

Todd Stern: “It’s all about the transformation.”

2050 analysis is important for avoiding intermediate solutions that fall short of long term goals.
Lays out strategy to deeply decarbonize the U.S. economy by 2050.
II. Role of law and policy in promoting or inhibiting new technologies.

http://pazhayathu.blogspot.com/2015/08/1896-cars-maximum-road-speed-by-law-was.html
• 1835 - Highways Act prohibits riding on footpaths, introduces dangerous driving.

• 1865 - Locomotive Act (amended 1878) - restricted the speed of horse-less vehicles to 4mph in open country and 2 mph in towns. Act required three drivers for each vehicle - 2 to travel in the vehicle and one to walk ahead carrying a red flag... **the Red Flag Act**.

• 1872 - Licensing Act - introduces offence of drinking whilst in charge of carriage, horse or cattle

• 1875 - 1589 people killed in road accidents

• 1896 - Repeal of 1865 'Red Flag Act' after nearly two decades of strong support from horse interests. Horse-less vehicles now free to travel faster than walking pace! Royal Automobile Club founded. First RAC London to Brighton run held to celebrate the new era of speed.

• 1905 - Automobile Association founded - fights to support members caught by police speed traps.

• 1930 - Road Traffic Act - introduced minimum age for driving and requirement of all vehicles to be insured. Required the Ministry of Transport to prepare guidance for road users - the first Highway Code.

• 1934 - Road Traffic Act - introduced 30mph speed limit in built up areas, pedestrian crossings (marked by the 'Belisha' beacon), required cycles to carry rear reflectors. First driving tests introduced.

http://pazhayathu.blogspot.com/2015/08/1896-cars-maximum-road-speed-by-law-was.html

https://www.pinterest.com/jwooddusty/cars-1900-1910/
Legal Pathways to Deep Decarbonization in the United States: Summary and Key Recommendations

LIMITED OFFER FROM ELI PRESS

ELI Press is offering a free pdf download of Legal Pathways to Deep Decarbonization In the United States: Summary & Key Recommendations, edited by Michael B. Gerrard and John C. Dernbach. The book contains key information and recommendations for federal, state, local, and private action from a longer volume. Legal Pathways to Deep Decarbonization in the United States (forthcoming March 2019), which identifies well over 1,000 legal options for transitioning away from fossil fuels. The longer volume (1,200 pages) has detailed legal analysis of each recommendation. The shorter edition grows out of a desire to get the main messages to the broadest possible audience. And while both the scale and complexity of deep decarbonization are enormous, both books have a simple message: deep decarbonization is achievable in the United States using laws that exist or could be enacted.

Want us to notify you when the larger volume is released? Enter your email here.

DOWNLOAD PDF

https://www.eli.org/sites/default/files/docs/books/deep_decarb_summary_booklet_online.pdf
Legal Pathways to Deep Decarbonization in the United States

Authors: Michael B. Gerrard and John C. Dernbach, Editors
Price: $64.95
Release Date: March 2019
Pages: 1200

RESERVE NOW

Coming in late March 2019

Legal Pathways to Deep Decarbonization in the United States provides a "legal playbook" for deep decarbonization in the United States, identifying well over 1,000 legal options for enabling the United States to address one of the greatest problems facing this country and the rest of humanity.

The book is based on two reports by the Deep Decarbonization Pathways Project (DDPP) that explain technical and policy pathways for reducing U.S. greenhouse gas emissions by at least 80% from 1990 levels by 2050. This 80x50 target and similarly aggressive carbon abatement goals are often referred to as deep decarbonization, distinguished because it requires systemic changes to the energy economy.

Legal Pathways explains the DDPP reports and then addresses in detail 35 different topics in as many chapters. These 35 chapters cover energy efficiency, conservation, and fuel switching; electricity decarbonization; fuel decarbonization; carbon capture and negative emissions; non-carbon dioxide climate pollutants; and a variety of cross-cutting issues. The legal options involve federal, state, and local law, as well as private governance. Authors were asked to include all options, even if they do not now seem politically realistic or likely, giving Legal Pathways not just immediate value, but also value over time.

While both the scale and complexity of deep decarbonization are enormous, this book has a simple message: deep decarbonization is achievable in the United States using laws that exist or could be enacted. These legal tools can be used with significant economic, social, environmental, and national security benefits.
# Table of Contents for LEGAL PATHWAYS TO DEEP DECARBONIZATION IN THE UNITED STATES

- Ch 2 Technical & Policy Aspects
- Ch 3 Carbon Pricing
- Ch 4 Behavior
- Ch 6 Finance
- Ch 7 Materials Consumption & Solid Waste
- Ch 9 Lighting, Appliances and Equipment
- Ch 10 New Buildings (rev)
- Ch 11 Existing Buildings
- Ch 12 Industrial Sector
- Ch 13 Transportation Demand
- Ch 14 Light Duty Vehicles
- Ch 15 Heavy Duty Vehicles and Freight
- Ch 16 Aviation
- Ch 17 Shipping
- Ch 18 Utility-Scale Renewable Generating ...
- Ch 19 Distributed Renewable Energy Facilities
- Ch 20 Transmission, Distribution, Storage
- Ch 21 Nuclear Energy
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- Ch 23 Electricity Charges, Mandates, & Sub...
- Ch 24 Phasing Out Fossil Fuels
- Ch 25 Bioenergy Feedstocks
- Ch 26 - Production and Delivery of Low-Ca...
- Ch 27 Production & Delivery of Bioenergy ...
- Ch 28 Carbon Capture & Sequestration
- Ch 29 Direct Air Capture
- Ch 30 Agriculture
- Ch 31 Forestry
- Ch 33 Methane
- Ch 35 Nitrous Oxide

Environmental Law Institute (ELI 2019)
1) Highly efficient end use of energy in buildings, transportation, and industry.

2) Decarbonization of electricity and reduced carbon in other kinds of fuels.

3) Electrification where possible and switching to lower-carbon fuels otherwise.
Three Pillars of Deep Decarbonization

Pathways to Deep Decarbonization in the United States, Mixed case results
Legal Pathways—Pillar 1

Energy efficiency, conservation, fuel switching

- Light duty vehicles
- Heavy duty vehicles and freight
- Transportation demand and mode shifting
- Aviation
- Shipping
- Lighting, appliances and other equipment
- Old buildings
- New buildings
- Industrial sector
Legal Pathways—Pillar 2

Electricity decarbonization

- Utility-scale renewables
- Distributed renewables
- Transmission, distribution and storage
- Nuclear
- Hydropower
- Phasing out fossil fuels in electricity sector
Legal Pathways—Pillar 3

Fuel decarbonization

- Bioenergy feedstock
- Production and delivery of low-carbon gaseous fuels
- Production and delivery of bioenergy fuels
Twelve types of legal tools

1) Additional regulation;
2) Reduction or removal of legal barriers;
3) Market-leveraging approaches;
4) Removal of incentives for fossil fuel use;
5) Tradable permits or allowances;
6) Information/persuasion;
7) Facilities and operations;
8) Infrastructure development;
9) Research and development;
10) Insurance;
11) Property rights;
12) Social equity.
Key Findings on Legal Pathways

• Legal tools are available to decarbonize U.S.

• Books include more than 1,500 specific recommendations for federal, state, local and private action.

• There are a wide variety of types of tools: some are regulatory, but most are not.

• These tools would create economic, social, environmental, and security benefits in addition to reducing GHG emissions.
III. Moving Forward With the Legal Pathways—Resources for Policymakers

Mobilizing Pro Bono Lawyers Through Coordinating Law Firms

Drafting federal and state statutes and regulations, model local laws, etc.

Renewable Energy Legal Defense Initiative
Legal Pathways to Deep Decarbonization in the United States

This resource hub is based on the forthcoming book, Legal Pathways to Deep Decarbonization in the United States, which provides a legal playbook for deep decarbonization in the United States, identifying well over 1,000 legal options or pathways for reducing greenhouse gas emissions. These pathways involve federal, state, and local law, as well as private governance.

Part I. Context
Part II. Cross-Cutting Approaches to Reducing Emissions
Part III. Energy Efficiency, Conservation, and Fuel Switching in Buildings and Industry
Part IV. Energy Efficiency, Conservation, and Fuel Switching in Transportation
Part V. Electricity Decarbonization
Part VI. Fuel Decarbonization
Part VII. Carbon Capture and Negative Emissions
Part VIII. Non-Carbon Dioxide Climate Pollutants

Rick Horsch of White & Case has agreed to coordinate the effort to find pro bono lawyers to do the legal drafting on federal and state statutes and regulations, model local laws, etc.

Any lawyers who might want to assist should contact Rick directly:
rhorsch@whitecase.com

Website coming soon:
**Recommendation:**

"Within the authority granted to them under state law and state building code requirements, local legislative bodies should adopt advanced building and energy codes that drive down carbon use in buildings, such as Seattle’s Energy Code." Deep Decarbonization In New Buildings, Paddock and McCoy at 48 ELR 10347.

**Type of Legislation or Rule:**

Model City/County/Local Building Code or Ordinance

**Accompanying Material to be Prepared:**

A commentary explaining the Code or Ordinance and supporting legal memorandum should also be prepared. An example of such an explanatory commentary and supporting legal memorandum can be found here.

**Special Legal Expertise**

Real estate law, land use and zoning law, or construction law experience is desirable, but not essential

**Deadline for Completion:**

[Discuss and agree on reasonable deadline for completion following initial assessment by drafting attorney]

**Notes/Comments/Sources:**

The drafter should review and analyze the laws adopted by Seattle and other city and local jurisdictions on advanced energy codes for the significant reduction of energy use in newly constructed buildings, consider their strengths and weaknesses, and based on that analysis prepare a model building code that could be as a template by other cities, counties and local governments.

The Seattle law adopting advanced building and energy codes is discussed by Paddock & McCoy in their article, Deep Decarbonization in New Buildings, at ELR 10341. The drafter should review the Paddock & McCoy article and the references to relevant legislation.

Information on the City of Seattle’s Energy Code, which goes beyond some of the mandates in the statewide code (for example, the ability to accommodate the installation of a solar PV system and the city’s building envelope for commercial buildings) is as follows:

Fact Sheet, Northwest Energy Efficiency Council, Air Barrier Management (July 2011), [http://nec净.net/sites/default/files/necn_codes-training/NREC-Air-Barrier-07-2011.pdf](http://nec.net/sites/default/files/necn_codes-training/NREC-Air-Barrier-07-2011.pdf), (requiring a tightness of 0.3 cubic feet per minute (cfm) per square foot rather than 0.4 cfm in the state code).


Seattle’s Code fills in gaps in the State of Washington’s Code. To prepare a more comprehensive advanced building and energy code at the local level, pertinent state codes should be considered. State building codes designed to reduce energy are discussed by Paddock & McCoy in their article, Deep Decarbonization In New Buildings, at ELR 10140-41.

The California Code and some related materials can be found at:


Hawai‘i’s State Building Code Council unanimously adopted the 2015 IECC with amendments to address the state’s specific needs. Hawai‘i’s code and some related materials can be found at:


Haw. Stat. Code §§408.2, 2.2, 408.2.3, 405.2.1, 405.2.2, 405.2.3.


The Washington State Building Code and some related materials can be found at:


“You may wish to consult with Lee Paddock or Caitlin McCoy for their additional thoughts on the legislation (contact information for Paddock & McCoy to be included, provided they so agree.)”

https://www.researchgate.net/publication/295796118_SUSTAINABLE_BUILDING_MATERIALS_USED_IN_GREEN_BUILDINGS/figures?lo=1
Resources available right now

Summary and key recommendations volume (160 pages) – free download:
https://www.eli.org/legal-pathways-deep-decarbonization-united-states-summary-and-key-recommendations

Full volume (1,200 pages) – available late March 2019 ($64.95):

The Dozen Types of Legal Tools in the Deep Decarbonization Toolbox:
Contacts

Prof. Michael B. Gerrard
Columbia Law School
435 West 116th Street
New York, NY 10027
(212) 854-3287
michael.gerrard@law.columbia.edu
http://columbiaclimatelaw.com
Twitter: @MichaelGerrard

Richard A. Horsch
White & Case
1155 Avenue of the Americas
New York, New York 10036
(212)819-8866
rhorsch@whitecase.com

Prof. John C. Dernbach
Widener University
Commonwealth Law School
3800 Vartan Way
Harrisburg, PA 17106-9382
(717) 541-1933
jcdernbach@widener.edu
http://ssrn.com/author=411559
http://www.johndernbach.com

Prof. K.K. DuVivier
University of Denver Sturm College of Law
2255 East Evans Avenue
Denver, CO 80208
(303) 871-6281
kkduvivier@law.du.edu
http://ssrn.com/author=725005