Here's a 50-state overview based on the state utility bills in the <u>Google folder</u> and also on <u>LA2015</u> (a 2015 research document from Louisiana that's also copied into the folder). Rates for standard state sales taxes come from <u>here</u>.

Overall, of the 50 states plus DC:

- No residential tax in 11 states (CT, DE, MA, MS, ND, NH, OH, SC, TN, VT, WV)
- Local tax only in 12 states (AK, CA, CO, IA, KS, KY, LA, MO, NV, OK, OR, TX)
- Partial state sales tax in 3 states (ME, MI, UT)
- Full state sales tax or equivalent in 12 states (AZ, AR, GA, IN, MN, NE, NJ, NC, NM, SD, WI, WY; note that AZ and NM technically have gross receipts taxes)
- No sales tax but other tax in 12 states plus DC (AL gross receipts in lieu, DC per kWh in lieu, FL gross receipts in lieu, HI complicated in lieu, ID complicated in lieu, IL per kWh in lieu, MD gross receipts plus per kWh in lieu, MT gross receipts plus per kWh, NY complicated in lieu, PA gross receipts in lieu, RI gross receipts in lieu, VA per kWh in lieu, WA gross receipts (?) in lieu)

# 1. Alabama - State gross receipts tax

LA2015 says "The sale of gas, water, or electricity sold by public utilities is exempt from sales and use tax, but utilities are subject to a separate utility privilege and license tax in Alabama." The state bill <a href="mailto:shows">shows</a> a tax of 3.9% or so on electricity and 4% on natural gas. This <a href="mailto:state website">state website</a> discusses utility taxes; it says that there's a tax of 2/5 mill (0.04%) on sales of hydroelectric power, a 2.2% tax on public utilities (other than hydroelectric), and a gross receipts tax on electricity/water/natural gas that starts at 4% but has lower tiers for higher-grossing utilities. The state sales tax is 4%.

# 2. Alaska - Local tax only

No state tax per LA2015; the state <u>bill</u> shows only local taxes. (Alaska has no state sales tax.) But there is some sort of tax on electric cooperatives, to the tune of about 0.05 cents per kWh; see <u>here</u> and <u>here</u>.

#### 3. Arizona - Full state sales tax +

The state <u>bill</u> shows the full 5.6% state sales tax plus other taxes, including a franchise fee. See also this <u>APS website</u>. LA2015 says there's a transaction privilege tax on gross receipts, and it references Ariz. Rev. Stat. Ann. §42-5063(A); Ariz. Rev. Stat. Ann. §42-5063(C). Many more details here.

#### 4. Arkansas - Full state sales tax +

LA2015 says that utilities are taxable; the state <u>bill</u> shows the full 6.5% state sales tax plus local taxes. See Ark. Code Ann. §26-52-301(2); Ark. Regs. GR-6(A). Also see this state <u>webpage</u> that references a 1.625% State Electricity Manufacturing Tax, plus this <u>Arkansas EDC</u> page about taxes.

# 5. California - Local tax only

No state tax per LA2015; the state <u>bill</u> shows local tax only. The state sales tax is 7.25%. Note that there's an NCEL contact.

### 6. Colorado - Local tax only

LA2015 says that utilities are taxable in general, but <u>Colorado DOR</u> says that residential electricity, gas etc. is exempt. The state <u>bill</u> shows a 3% Franchise Fee plus a 4.4% sales tax (presumably all local taxes). See Colo. Rev. Stat. §39-26-104(1)(d.1). The state sales tax is 2.9%.

#### 7. Connecticut - No tax

No state tax per LA2015 and state <u>bill</u>. The state sales tax is 6.35%. But see this <u>article</u> about fees, and this <u>Eversource breakdown</u>; apparently the <u>Combined Public Benefit Charge</u> of 1.621 cents per kWh includes some money for energy efficiency. See also this <u>state website</u>.

#### 8. Delaware - No tax

No state tax per LA2015 and state <u>bill</u>. (Delaware has no state sales tax.) There is a 4.25% <u>Public Utility Tax</u> on some non-residential use.

#### 9. D.C. - No sales tax, but other

No sales tax per LA2015 and the state <u>bill</u>, but it does show a Delivery Tax of 0.7 cents per kWh. (See also <u>here</u>.) The DC sales tax is 6%.

# 10. Florida - State gross receipts tax

LA2015 says that residential electricity is exempt but that there's a 2.6% gross receipts tax. The state <u>Dept of Revenue</u> says it's a 2.5% Gross Receipts Tax; the <u>bill</u> shows a gross receipts tax of 2.5% if you include the amount of the tax itself in the tax base (!). <u>Florida Power & Light</u> says that it's "about" a 2.56% Gross Receipts Tax, which is correct if you calculate the tax as a share of the pre-tax amount: if the pre-tax amount is x then the tax amount t is given by 0.025\*(x+t)=t, which solves to t/x = 0.025 / (1-0.025) = 0.02564103, i.e., "about 2.56%". The state sales tax is 6%. Many more details <u>here</u>; unfortunately it seems like the Gross Receipts Tax funds school construction, which complicates matters.

# 11. Georgia - Full state sales tax +

LA2015 says state sales tax applies, and the <u>bill</u> shows a sales tax of 8%, which includes the **full** 4% state sales tax as well as 4% local sales tax. There's also a <u>Municipal Franchise Fee</u> of almost 3%. Many more details <u>here</u>.

#### 12. Hawaii - No state sales tax, but others

LA2015 says that sales of electric power to a public utility for resale to the public are subject to tax, and that public utilities pay a public service company tax but are exempt from the general excise tax. The state <u>bill</u> shows a variety of charges but no tax. The state sales tax is 4%. See this <u>article</u> for some information about various utility taxes.

#### 13. Idaho - No state sales tax, but others

No state tax per LA2015 and state <u>bill</u>, but there is a <u>0.5 mill (0.05%) tax</u> on water-generated electricity for residential or commercial use, and the bills show a local franchise fee. The state sales tax is 6%.

#### 14. Illinois - No sales tax but others

LA2015 says: "The sale of electricity and natural gas is not subject to sales and use tax because electricity is taxed under the Electricity Excise Tax Law and natural gas is taxed under the Gas Revenue Tax Act or the Gas Use Tax Law." The state sales tax is 6.25%. The state bill shows a hefty Municipal Tax for gas and electricity, plus a franchise tax for electricity, a Gas Revenue Tax for gas, and "state tax" for both gas and electricity: the "state tax" on gas is 0.1%; the "state tax" on electricity works out to about 2%, but the law says that it's a tax of \$0.0033 per kWh for the first 2000 kWh per month.

#### 15. Indiana - Full state sales tax

LA2015 says utilities are taxable; the state <u>bill</u> shows the full 7% state sales tax, as does this <u>state website</u>.

# 16. lowa - Local tax only

LA2015 says utilities are taxable, but the state <u>bill</u> shows only a local tax, and this <u>state</u> <u>webpage</u> says that "residential energy" is exempt from state sales tax. The state sales tax is 6%.

#### 17. Kansas - Local tax only

LA2015 says sales tax applies to utilities, but the state <u>bill</u> shows only a 2.8% local sales tax. This <u>2009 state document</u> says that residential utilities are exempt from state sales tax. The state sales tax is 6.5%.

# 18. Kentucky - Local tax only

No state sales tax per LA2015 (the state sales tax is 6%), but the state <u>bill</u> shows a 3% local schools tax (officially the <u>Utility Gross Receipts License Tax</u>) and a 4% local franchise fee. See this <u>article</u> that discusses the state sales tax.

### 19. Louisiana - Local tax only

The state <u>bill</u> shows no tax. LA2015 is unclear because they were considering removing the exemption that existed previously. This <u>Entergy Louisiana</u> webpage suggests there's no state tax; see also this <u>blog post</u> that says there's a 2% sales tax for non-residential use. The state sales tax is 4.45%.

# 20. Maine - Mostly no sales tax

LA2015 says: "The sale and delivery of the first 750 kilowatt hours of residential electricity per month, as well as off-peak residential electricity used for space heating or water heating by electric thermal storage devices, is exempt from sales tax." See <u>section 9-B</u> of this law. The state <u>bill</u> shows no tax. The state sales tax is 5.5%.

# 21. Maryland - No sales tax, but gross receipts tax

LA2015 suggests that utilities are subject to sales tax, but the state <u>bill</u> doesn't show it. This <u>state website</u> (see also <u>Form 11</u> and <u>Form 29EW</u>) suggests there's a 2% gross receipts tax plus a tax of 0.062 cents per kWh charge on electricity and a tax of 0.402 cents per therm of natural gas. The state sales tax is 6%.

#### 22. Massachusetts - No tax

LA2015 suggests that utilities are subject to sales tax, but the <u>bill</u> shows no tax and this <u>state</u> <u>website</u> says that residential users, small businesses, and manufacturers are exempt from sales tax on electricity, natural gas, and heating fuels. The state sales tax is 6.25%.

# 23. Michigan - Partial state sales tax

LA2015 says that residential and commercial (but not industrial) customers are subject to sales tax; The state <u>bill</u> shows a 4% state sales tax, less than the standard state sales tax rate of 6%. Michigan <u>Dept of Treasury</u> says: "Individuals or businesses that sell tangible personal property to the final consumer are required to remit a 6% sales tax on the total price (including shipping and handling charges) of their taxable retail sales to the State of Michigan. Sales of electricity, natural or artificial gas and home heating fuels for residential use are taxed at a 4% rate. Michigan does not allow city or local units to impose sales tax."

# 24. Minnesota - Full state sales tax for most households

LA2015 suggests that utilities are subject to sales tax, and the state <u>bill</u> shows the full 6.875% state sales tax. But MN <u>Dept of Revenue</u> says that "Natural gas or electricity sold to metered customers for their primary source of residential heat are not taxable during the billing months of [Nov - April]." <u>EIA</u> says that 17.3% of MN households have electric heat, and if we estimate that heating takes up 50% of the electric use for these households and the rest of the electricity use is evenly divided across the year then that means that these households only pay sales tax on

25% of their electricity, and that overall some 13% (=17.3%\*0.75) of residential electricity is exempt from sales tax. Many more details <u>here</u>.

# 25. Mississippi - No bill, no state sales tax

No bill yet. No state tax on residential consumption per LA2015. The state sales tax is 7%. This <u>state website</u> says that residential consumption of electricity and fuels is exempt but that commercial consumption is subject to the full 7% rate. See also this <u>Mississippi Power</u> website.

# 26. Missouri - Local tax only

No state tax on residential consumption of electricity per LA2015 and state <u>bill</u>. (The state sales tax is 4.225%.) This <u>state website</u> discusses the residential exemption. See also this <u>Ameren</u> webpage.

# 27. Montana - State gross receipts tax +

No state tax per LA2015, but the state <u>bill</u> shows some significant "state and local tax" amounts. There are gross receipts taxes of <u>0.439%</u> and <u>0.127%</u> on electric and gas utilities, plus a <u>0.015</u> <u>cents per kWh</u> electricity transmission tax. Montana has no state sales tax. Note that there's an <u>NCEL contact</u>.

#### 28. Nebraska - Full state sales tax +

LA2015 says that gross receipts are subject to tax, and the state <u>bill</u> shows a state plus local sales tax of 7.25% in Lincoln. (The full state sales tax is 5.5%, and in Lincoln the total rate is 7.25%.) See here for <u>state law about gross receipts</u>; this appears to be different than the sales tax, with a <u>5% gross receipts tax</u> paid out to <u>local governments</u>. Many more details <u>here</u>.

# 29. Nevada - Local tax only

No state tax per LA2015 and state <u>bill</u>, but the bill does show a 5% "local government fee". The state sales tax is 6.85%.

#### 30. New Hampshire - No tax

No state tax per LA2015 and state <u>bill</u>. (NH has no state sales tax.) The state bill does show a "<u>system benefits charge</u>".

#### 31. New Jersey - Full state sales tax

LA2015 suggests that utilities are subject to the full state sales tax of 6.625% (see also <a href="here">here</a>); the state <a href="mailto:bill">bill</a> doesn't show any tax, but <a href="mailto:state-law">state-law</a> requires that the tax be included in the price and not as a separate line item.

# 32. New Mexico - Full state gross receipts tax

LA2015 says that gross receipts are subject to tax, and the state <u>bill</u> shows the full 5.125% state Gross Receipts Tax; see also this <u>state website</u>, which says the state has no sales tax but a 5.125% Gross Receipts Tax. The EIA has data on <u>electricity sales to different sectors</u> and <u>revenue from those sales</u> in 2018, and based on that information it looks like the residential sector in New Mexico spent \$866m for 6.8m MWh and the commercial sector spent \$905m for 9.0m MWh; at a 5.125% state tax rate that works out to tax revenue of about \$44m from the residential sector and \$46m from the commercial sector, for a total of \$90m. Electricity in the state seems to have a <u>carbon intensity</u> of about 0.56 MTCO2 per MWh, so 15.8m MWh generates about 8.9 MMTCO2. Simply replacing the \$90m in taxes with an equivalent amount of carbon taxes on the 8.9 MMTCO2 of residential and commercial electricity would yield a carbon tax of about \$10 per ton CO2. That's about 1 cent per kWh of coal-fired power and 0.5 cents per kWh of natural-gas-fired power. Many more details <u>here</u>.

# 33. New York - No state sales tax, but others

LA2015 suggests that utilities are subject to sales tax, but this <u>state webpage</u> says residential utilities are exempt from state sales tax. (The state sales tax is 4%.) A state <u>bill</u> from Oneonta shows a tax on electricity and natural gas of 3.0928% on delivery charges and 1.0101% on supply charges. There's a 2% state gross receipts tax (see <u>Tax Law 186-A</u>). The <u>third page</u> of the sample bills shows a bill from NYC that indicates that the full NYC sales tax of 4.5% is levied on electricity sales. (See also this state <u>compendium</u> of local taxes.) See also this <u>page</u> about state taxes, and <u>this one</u>. See here for <u>NYC energy consumption</u> and this <u>NYT overview</u>. See also <u>NY AREA</u> and this <u>state law</u> (instructions <u>here</u>). See also this <u>state tax report</u>, linked from <u>here</u>; NY AREA says to look at Table 6 on p18, which shows Section 186-a revenue of \$184m in FY2019. See also this NYC report, linked from <u>here</u>; NY AREA says to look at Appendix II, page 124, but in the new report it's on p148, showing that the NYC Utility Tax is 2.35% of gross income; p144 says that the Utility Tax generated \$369m in FY2019. See also this <u>NYC document</u> from 1999. More details here for <u>NY State</u> and <u>NY City</u>.

#### 34. North Carolina - Full state sales tax +

LA2015 suggests (and the state <u>bill</u> shows) that electricity is subject to a combined 7% state and local tax. The **full** state sales tax is 4.75%.

#### 35. North Dakota - No state tax

LA2015 suggests that utilities are subject to sales tax, but this <u>state website</u> says that electricity is exempt from sales tax and the state <u>bill</u> shows only local taxes. The state sales tax is 5%.

# 36. Ohio - No tax

No state tax on electricity per LA2015 and state <u>bill</u>. (The state sales tax is 5.75%.) The bill does show various taxes on natural gas, including some sales tax and a Gross Receipts Tax; this

state <u>website</u> says that electric companies are exempt from the Gross Receipts Tax. PS. Here's a <u>2019 Vox article</u> on bad energy policy in Ohio.

# 37. Oklahoma - Local tax only

No state tax per LA2015; the state bill shows only local taxes. The state sales tax is 4.5%.

# 38. Oregon - Local tax only

No state tax per LA2015; the state bill shows only local taxes. (Oregon has no state sales tax.)

# 39. Pennsylvania - State gross receipts tax +

No state tax on residential consumption per LA2015, and this state website shows that it's exempt, but there is a 5.9% Gross Receipts Tax. (One sample state bill mistakenly shows the full state sales tax of 6% on electricity and natural gas.) The EIA has data on electricity sales to different sectors and revenue from those sales in 2018, and based on that information it looks like the residential sector in PA spent \$7.8 billion for 55.9m MWh, the commercial sector spent \$3.9 billion for 43.2m MWh, and the industrial sector spent \$3.4 billion for 49.2m MWh, for a total of \$15.1 billion for 148.3m MWh; at a 5.9% tax rate that works out to tax revenue of about \$458m from the residential sector, \$232m from the commercial sector, and \$200m from the industrial sector, for a total of \$890m. Electricity in the state seems to have a carbon intensity of about 0.36 MTCO2 per MWh, so 148.3m MWh generates about 53.4 MMTCO2. Simply replacing the \$890m in taxes with an equivalent amount of carbon taxes on the 53.4 MMTCO2 of electricity would yield a carbon tax of about \$17 per ton CO2. That's about 2 cents per kWh of coal-fired power and 1 cent per kWh of natural-gas-fired power. Note that there's an NCEL contact. See also Gross Receipts Tax information on pp3-5 of the state Tax Compendium, which says that the 5.9% tax covers sales of electric energy but that: "Municipally owned or operated public utilities may exclude gross receipts derived from business done inside the limits of the municipality. Companies selling electric energy for resale are entitled to exclude those gross receipts. Electric cooperative corporations are exempt from gross receipts tax on electric companies for sales within their service territory. "See also the Statistical Supplement, which (on page 12) shows that Gross Receipts Tax on electricity brought in \$907m in FY 2019 and (on page 17) shows that Sales Taxes on electricity and natural gas brought in \$192m and \$86m, respectively, in FY 2019.

# 40. Rhode Island - State gross earnings tax

No state tax on residential consumption per LA2015, but the state <u>bill</u> shows a Gross Earnings Tax of 3-4%. Chapter <u>44-13</u> (see especially <u>44-13-4</u>) says that electric utilities pay a Public Service Corporation Tax equal to 4% of gross earnings (and that natural gas utilities pay 3%). The state sales tax is 7%.

#### 41. South Carolina - No tax

No state tax per LA2015 and state bill. The state sales tax is 6%.

# 42. South Dakota - Full state sales tax

LA2015 suggests that utilities are subject to sales tax; the state <u>bill</u> shows the **full** 4.5% state sales tax. Many more details <u>here</u>.

#### 43. Tennessee - No tax.

No state tax per LA2015 and state bill. The state sales tax is 7%.

# 44. Texas - Local tax only

LA2015 suggests that utilities are subject to sales tax, but the state <u>bill</u> shows local taxes only. The state sales tax is 6.25%.

#### 45. Utah - Partial state sales tax +

LA2015 suggests that residential and commercial consumption of utilities are subject to sales tax; the state <u>bill</u> shows a 2% state sales tax rate (lower than the standard 4.85% rate) plus a 2.15% local sales tax plus a 6% Municipal Energy Tax.

#### 46. Vermont - No tax

No state tax on residential consumption per LA2015 and state bill. The state sales tax is 6%.

# 47. Virginia - State consumption tax +

No state tax per LA2015, but the state <u>bill</u> shows a state/local consumption tax of 0.155 cents per kWh; see also <u>here</u>, which claims that on the first block the total tax is 0.1595 cents per kWh, of which the state portion is 0.1215 cents per kWh) plus a local utility tax. The state sales tax is 4.3%.

#### 48. Washington State - State gross receipts tax +

No state tax per LA2015, but the second page of the state <u>bill</u> shows a 3.8734% gross receipts tax on electric utilities. (See also <u>here</u>.) The state sales tax is 6.5%.

# 49. West Virginia - No tax

No state tax per LA2015 and state bill. The state sales tax is 6%.

#### 50. Wisconsin - Full state sales tax +

LA2015 suggests that utilities are subject to sales tax; the state <u>bill</u> shows a 5.5% tax, which is the full state sales tax rate of 5% plus a county tax of 0.5%. Note that there's an <u>NCEL contact</u>. Many more details <u>here</u>.

# 51. Wyoming - Full state sales tax +

LA2015 suggests that utilities are subject to sales tax; the state <u>bill</u> shows the full state sales tax of 4% plus some local taxes.