Energy Economics

CEMFI

EnergyEconLab

Winter 2027

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When:		**Where:**	

Description: Drawing on the analytical tools of industrial organization and applied microeconomics, this course examines key issues in energy markets and related environmental markets. Topics include the functioning and performance of electricity markets; the effects of emissions regulations on market dynamics; environmental externalities associated with energy production and consumption; market power and antitrust enforcement in energy markets; investment incentives in generation capacity and energy efficiency; and the design and impact of policies promoting renewables, storage technologies, and demand-side responses, among others. We will engage with both foundational theoretical and empirical research, as well as recent contributions at the frontier of the field. Students are encouraged to explore emerging questions and develop original research ideas within this evolving policy debate.

Office Hours: Thursdays, from 14 to 15h, and by appointment.

Course evaluations: Students will be asked to present a research proposal in class. Students will also be assessed on the basis of problems solved in class, a case study, the final exam, and class participation.

Evaluation criteria: 70% Exam (including in-house exam and research proposal); 15% Homework (including all the work done for the TA sessions); 15% Presentation (including participation in class and presentation of the research proposal).

Lectures: The course consists of three 1.5-hour sessions per week (on Thursdays and Fridays) over 10 weeks (Sept 25 – Nov 28). It includes five TA sessions: one on reviewing relevant data sources, two on solving exercises, and two on learning and completing electricity market simulations.

Readings and class materials: A list of papers for each topic is suggested below. Papers marked with an * are required readings. Class material will be distributed ahead of the classes. Fabra, N. and Reguant, M. (2026) "Powering the Energy Transition: Progress and Challenges" provides a survey covering part of the course material. Basic facts about electricity can be found here.

Participation: You are expected to come prepared for class by completing the required reading. You will be expected to have identified and analyzed the important concepts in the reading. Effective class participation moves the discussion forward!

Course Topics

Please visit this webpage for an updated course schedule.

1. Introduction and Overview of Energy Markets in Practice (1.5 sessions)
2. Competition in Wholesale Electricity Markets: Theory and Evidence (5.5 sessions)
3. Forwards and Long-Term Contracts (2 sessions)
4. The Economics of Renewable Energies: Market Impacts and Policies (3 sessions)
5. Capacity Investments and Security of Supply (1 session)
6. Energy Storage and Transmission (2 sessions)
7. Analyzing Pollution Permits and Taxes (2 sessions)
8. Environmental policies for cars (1 session)
9. Retail Markets: Competition and Pricing (1 session)
10. Distributional and Socio-Economic Effects of Energy and Climate Policies (1 session)

Readings by Course Topic

1. **Introduction and Overview of Energy Markets in Practice** (1.5 sessions)
   - Borenstein, S. (2002). The Trouble With Electricity Markets: Understanding California's Restructuring Disaster. *Journal of Economic Perspectives*, *16*(1), 191–211. https://doi.org/10.1257/0895330027175
   - * Fabra, N. (2021). The energy transition: An Industrial Economics Perspective. *International Journal of Industrial Organization*, *79*, 102734. https://doi.org/https://doi.org/10.1016/j.ijindorg.2021.102734
   - *Joskow, P. L. (2019). Challenges for wholesale electricity markets with intermittent renewable generation at scale: the US experience. *Oxford Review of Economic Policy*, *35*(2), 291–331. https://doi.org/10.1093/oxrep/grz001
   - *Newbery, D. M. (2011). *Reforming Competitive Electricity Markets to Meet Environmental Targets* (tech. rep. No. 1154) (CWPE 1154). Cambridge Working Papers in Economics. https://www.econ.cam.ac.uk/sites/default/files/publication-cwpe-pdfs/cwpe1154.pdf

- Wolak, F. A. (2014, June). Regulating Competition in Wholesale Electricity Supply. In *Economic Regulation and Its Reform: What Have We Learned?* (pp. 195–289). University of Chicago Press. http://www.nber.org/chapters/c12567
- Kellogg, R., & Reguant, M. (2021). *Energy and Environmental Markets, Industrial Organization, and Regulation* [NBER Working Paper No. w29235. In preparation for the Handbook of Industrial Organization.]. https://www.nber.org/papers/w29235
- Internet has amazing resources! You might want to watch this introductory video and this description about basic facts about electricity from Understand energy course from Stanford University. A useful facts sheet can be found here.

2. **Competition in Wholesale Electricity Markets: Theory** (4.5 sessions)

- Borenstein, S. (2000). Understanding Competitive Pricing and Market Power in Wholesale Electricity Markets. *The Electricity Journal*, *13*, 49–57. https://doi.org/10.2139/ssrn.506283
- Fabra, N., & de Frutos, M. A. (2012). Forward Contract Obligations in Multi-Unit Auctions. *European Economic Review*, *56*(3), 451–469. https://hdl.handle.net/10016/5010
- *Fabra, N., von der Fehr, N.-H., & Harbord, D. (2006). Designing Electricity Auctions. *The RAND Journal of Economics*, *37*(1), 23–46. http://www.jstor.org/stable/25046225
- *Fabra, N., & Llobet, G. (2022). Auctions with Privately Known Capacities: Understanding Competition Among Renewables. *The Economic Journal*, *133*(651), 1106–1146. https://doi.org/10.1093/ej/ueac080
- *Fabra, N., & Llobet, G. (2025a). Fossil Fuels and Renewable Energy: Mix or Match. *Rand Journal of Economics*, *forthcoming*
- *von der Fehr, N.-H., & Harbord, D. (1993). Spot Market Competition in the UK Electricity Industry. *The Economic Journal*, *103*(418), 531–546. http://www.jstor.org/stable/2234530
- Green, R., & Newbery, D. M. (1992). Competition in the British Electricity Spot Market. *Journal of Political Economy*, *100*(5), 929–53. https://www.journals.uchicago.edu/doi/10.1086/261846
- Holmberg, P., & Wolak, F. A. (2018). Comparing auction designs where suppliers have uncertain costs and uncertain pivotal status. *The RAND Journal of Economics*, *49*(4), 995–1027. http://www.jstor.org/stable/45147420
- Klemperer, P. D., & Meyer, M. A. (1989). Supply Function Equilibria in Oligopoly under Uncertainty. *Econometrica*, *57*(6), 1243–1277. http://www.jstor.org/stable/1913707

3. **Competition in Wholesale Electricity Markets: Evidence** (1 session)

- Crawford, G. S., Crespo, J., & Tauchen, G. (2007). Bidding Asymmetries in Multi-Unit Auctions: Implications of Bid Function Equilibria in the British Spot Market for Electricity. *International Journal of Industrial Organization*, *25*(6), 1233–1268. http://dx.doi.org/10.2139/ssrn.829292
- *Hortaçsu, A., & Puller, S. L. (2008). Understanding Strategic Bidding in Multi-Unit Auctions: A Case Study of the Texas Electricity Spot Market. *RAND Journal of Economics*, *39*(1), 86–114. https://www.jstor.org/stable/25046365
- Wolak, F. A. (2003). Measuring Unilateral Market Power in Wholesale Electricity Markets: The California Market, 1998-2000. *American Economic Review*, *93*(2), 425–430. https://doi.org/10.1257/000282803321947461
- *Wolfram, C. D. (1999). Measuring Duopoly Power in the British Electricity Spot Market. *American Economic Review*, *89*(4), 805–826. https://doi.org/10.1257/aer.89.4.805
- *Wolfram, C. D. (1998). Strategic Bidding in a Multiunit Auction: An Empirical Analysis of Bids to Supply Electricity in England and Wales. *The RAND Journal of Economics*, *29*(4), 703–725. http://www.jstor.org/stable/2556090

4. **Forwards and Long-Term Contracts** (2 sessions)

- *Allaz, B., & Vila, J.-L. (1993). Cournot Competition, Forward Markets and Efficiency. *Journal of Economic Theory*, *59*(1), 1–16. https://doi.org/https://doi.org/10.1006/jeth.1993.1001
- Bushnell, J. B., Mansur, E. T., & Saravia, C. (2008). Vertical Arrangements, Market Structure, and Competition: An Analysis of Restructured US Electricity Markets. *American Economic Review*, *98*(1), 237–66. https://doi.org/10.1257/aer.98.1.237
- Fabra, N., & de Frutos, M. A. (2012). Forward Contract Obligations in Multi-Unit Auctions. *European Economic Review*, *56*(3), 451–469. https://hdl.handle.net/10016/5010
- *Fabra, N., & Llobet, G. (2025b). *The Costs of Buyer Counterparty Risk in Long-Term Contracting* [Working paper]. https://events.bse.eu/live/files/4967-ppa-paperpdf
- Liski, M., & Montero, J.-P. (2006). Forward trading and collusion in oligopoly. *Journal of Economic Theory*, *131*(1), 212–230. https://doi.org/None
- *Ryan, N. (2025). *Holding Up Green Energy: Counterparty Risk in the Indian Solar Power Market* [Forthcoming in *Econometrica*]

5. **The Economics of Renewable Energies: Market Impacts and Policies** (4 sessions)

- Aldy, J. E., Gerarden, T. D., & Sweeney, R. L. (2023). Investment versus output subsidies: Implications of alternative incentives for wind energy. *Journal of the Association of Environmental and Resource Economists*, *10*(4), 981–1018. https://doi.org/10.1086/723142

- *Borenstein, S. (2012b). The Private and Public Economics of Renewable Electricity Generation. *Journal of Economic Perspectives*, *26*(1), 67–92. https://doi.org/10.1257/jep.26.1.67
- Callaway, D. S., Fowlie, M., & McCormick, G. (2018). Location, Location, Location: The Variable Value of Renewable Energy and Demand-Side Efficiency Resources. *Journal of the Association of Environmental and Resource Economists*, *5*(1), 39–75. https://doi.org/10.1086/694179
- *Fabra, N., & Imelda. (2023). Market Power and Price Exposure: Learning from Changes in Renewable Energy Regulation. *American Economic Journal: Economic Policy*, *15*(4), 323–58. https://doi.org/10.1257/pol.20210221
- *Fabra, N., & Montero, J.-P. (2022). Technology-Neutral Versus Technology-Specific Procurement. *The Economic Journal*, *133*(650), 669–705. https://doi.org/10.1093/ej/ueac075
- Gerarden, T., Reguant, M., & Xu, D. Y. (2025, October). *The role of industrial policy in the renewable energy sector* (None). https://doi.org/None
- Weber, P., & Woerman, M. (2024). Intermittency or Uncertainty? Impacts of Renewable Energy in Electricity Markets. *Journal of the Association of Environmental and Resource Economists*, *11*(6). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4212066
- *Ito, K., & Reguant, M. (2016). Sequential Markets, Market Power, and Arbitrage. *American Economic Review*, *106*(7), 1921–57. https://doi.org/10.1257/aer.20141529
- *Joskow, P. L. (2011). Comparing the Costs of Intermittent and Dispatchable Electricity Generating Technologies. *American Economic Review*, *101*(3), 238–41. https://doi.org/10.1257/aer.101.3.238
- Gowrisankaran, G., Reynolds, S. S., & Samano, M. (2016). Intermittency and the Value of Renewable Energy. *Journal of Political Economy*, *124*(4), 1187–1234. https://doi.org/10.1086/686733
- Novan, K. (2015). Valuing the Wind: Renewable Energy Policies and Air Pollution Avoided. *American Economic Journal: Economic Policy*, *7*(3), 291–326. https://doi.org/10.1257/pol.20130268
- Reguant, M. (2019). The Efficiency and Sectoral Distributional Implications of Large-Scale Renewable Policies. *Journal of the Association of Environmental and Resource Economists*, *6*(S1), S189–S208. https://doi.org/10.1086/701190

6. **Capacity Investments and Security of Supply** (1 session)

- *Fabra, N., von der Fehr, N.-H. M., & de Frutos, M.-Á. (2011). Market Design and Investment Incentives. *The Economic Journal*, *121*(557), 1340–1360. https://doi.org/10.1111/j.1468-0297.2011.02450.x
- *Fabra, N. (2018). A primer on capacity mechanisms. *Energy Economics*, *75*, 323–335. https://doi.org/https://doi.org/10.1016/j.eneco.2018.08.003

- Llobet, G., & Padilla, J. (2018). Conventional Power Plants in Liberalized Electricity Markets with Renewable Entry. *The Energy Journal*, *39*(3), 69–92. https://www.jstor.org/stable/26534443
- Bushnell, J., Flagg, M., & Mansur, E. T. (2017). *Capacity Markets at a Crossroad* (Haas Working Paper No. 278). Energy Institute at Haas, University of California, Berkeley. https://www.haas.berkeley.edu/wp-content/uploads/WP278Updated.pdf
- European Parliament. (2017). Capacity Mechanisms for Electricity [EPRS Briefing No. 603949]. https://www.europarl.europa.eu/RegData/etudes/BRIE/2017/603949/EPRS_BRI(2017)603949_EN.pdf
- Schwenen, S. (2015). Strategic bidding in multi-unit auctions with capacity constrained bidders: the New York capacity market. *The RAND Journal of Economics*, *46*(4), 730–750. http://www.jstor.org/stable/43895614

7. **Energy Storage and Transmission** (3 sessions)

- *Andrés-Cerezo, D., & Fabra, N. (2023). Storing power: market structure matters. *The RAND Journal of Economics*, *54*(1), 3–53. https://doi.org/https://doi.org/10.1111/1756-2171.12429
- *Andres, D., & Fabra, N. (2025). Storage and Renewable Energies: Friends or Foes? *Economic Journal*. https://nataliafabra.org/wp-content/uploads/2023/09/Storage_and_Renewable_Energies.pdf
- Borenstein, S., Bushnell, J., & Stoft, S. (2000). The Competitive Effects of Transmission Capacity in a Deregulated Electricity Industry. *The RAND Journal of Economics*, *31*(2), 294–325. http://www.jstor.org/stable/2601042
- Bushnell, J. (2003). A mixed complementarity model of hydro-thermal electricity competition in the Western U.S. *Operations Research*, *51*, 80–93. https://doi.org/10.1287/opre.51.1.80.12800
- *Garcia, A., Reitzes, J. D., & Stacchetti, E. (2001). Strategic Pricing when Electricity is Storable. *Journal of Regulatory Economics*, *20*(3), 223–247. https://doi.org/10.1023/A:1011151409081
- *Hausman, C. (2025). Power flows: Transmission lines, allocative efficiency, and corporate profits. *American Economic Review*, *115*(8), 2574–2615. https://doi.org/10.1257/aer.20240276
- *Gonzales, L. E., Ito, K., & Reguant, M. (2023). The investment effects of market integration: Evidence from renewable energy expansion in chile. *Econometrica*, *91*(5), 1659–1693. https://doi.org/10.3982/ECTA20769
- *Joskow, P. L., & Tirole, J. (2000). Transmission Rights and Market Power on Electric Power Networks. *The RAND Journal of Economics*, *31*(3), 450–487. http://www.jstor.org/stable/2600996

- Ryan, N. (2021). The Competitive Effects of Transmission Infrastructure in the Indian Electricity Market. *American Economic Journal: Microeconomics*, *13*(2), 202–42. https://doi.org/10.1257/mic.20180191

8. **Analyzing Pollution Permits and Taxes** (2 sessions)

- Gillingham, K., & Stock, J. H. (2018). The Cost of Reducing Greenhouse Gas Emissions. *Journal of Economic Perspectives*, *32*(4), 53–72. https://doi.org/10.1257/jep.32.4.53
- Parry, I. W., & Pizer, W. A. (2007). Emissions Trading Versus CO_2 Taxes Versus Standards. In *Assessing U.S. Climate Policy Options* (pp. 80–86). Resources for the Future. https://media.rff.org/documents/CPF_7_IssueBrief_5.pdf
- *Ellerman, A. D., & Joskow, P. L. (2008). *The European Union's Emissions Trading System in Perspective* (tech. rep.). Pew Center on Global Climate Change. Arlington, VA. https://economics.mit.edu/sites/default/files/2022-09/EU%20Emissions%20Trading%20System%20in%20Perspective.pdf
- Borghesi, S., & Montini, M. (2016). The Best (and Worst) of GHG Emission Trading Systems: Comparing the EU ETS with Its Followers. *Frontiers in Energy Research*, *4*, 27. https://doi.org/10.3389/fenrg.2016.00027
- Borenstein, S., Bushnell, J., Wolak, F. A., & Zaragoza-Watkins, M. (2019). Expecting the Unexpected: Emissions Uncertainty and Environmental Market Design. *American Economic Review*, *109*(11), 3953–77. https://doi.org/10.1257/aer.20161218
- *Fabra, N., & Reguant, M. (2014). Pass-Through of Emissions Costs in Electricity Markets. *American Economic Review*, *104*(9), 2872–99. https://doi.org/10.1257/aer.104.9.2872
- *Fowlie, M., & Reguant, M. (2018). Challenges in the Measurement of Leakage Risk. *AEA Papers and Proceedings*, *108*, 124–29. https://doi.org/10.1257/pandp.20181087
- *Fowlie, M. L., & Reguant, M. (2022). Mitigating Emissions Leakage in Incomplete Carbon Markets. *Journal of the Association of Environmental and Resource Economists*, *9*(2), 307–343. https://doi.org/10.1086/716765
- Martin, R., Muûls, M., de Preux, L. B., & Wagner, U. J. (2014). Industry Compensation under Relocation Risk: A Firm-Level Analysis of the EU Emissions Trading Scheme. *American Economic Review*, *104*(8), 2482–2508. https://doi.org/10.1257/aer.104.8.2482
- Ambec, S. (2022, September). *The European Union's Carbon Border Adjustment Mechanism: Challenges and Perspectives* (TSE Working Paper No. 22-1365). Toulouse School of Economics. https://www.tse-fr.eu/publications/european-unions-carbon-border-adjustment-mechanism-challenges-and-perspectives
- Fowlie, M., Petersen, C., & Reguant, M. (2021). Border Carbon Adjustments When Carbon Intensity Varies across Producers: Evidence from California. *AEA Papers and Proceedings*, *111*, 401–05. https://doi.org/10.1257/pandp.20211073

- *Weitzman, M. L. (1974). Prices vs. Quantities. *The Review of Economic Studies*, *41*(4), 477–491. https://doi.org/10.2307/2296698

9. **Environmental Policies for Cars** (1 session)

- *Grigolon, L., Reynaert, M., & Verboven, F. (2018). Consumer valuation of fuel costs and tax policy: Evidence from the european car market. *American Economic Journal: Economic Policy*, *10*(3), 193–225. https://doi.org/10.1257/pol.20160078
- Barwick, P. J., Kwon, H.-s., & Li, S. (2024). Attribute-based subsidies and market power: An application to electric vehicles
- Barwick, P. J., Kwon, H.-s., Wang, B., & Zahur, N. B. (2023). Pass-through of Electric Vehicle Subsidies: A Global Analysis. *AEA Papers and Proceedings*, *113*, 323–328. https://doi.org/10.1257/pandp.20231064
- Barwick, P. J., Kwon, H.-s., Li, S., & Zahur, N. B. (2025). Drive down the cost: Learning by doing and government policies in the global ev battery industry
- Durrmeyer, I., & Samano, M. (2018). To rebate or not to rebate: Fuel economy standards versus feebates. *The Economic Journal*, *128*(616), 3076–3116. https://doi.org/https://doi.org/10.1111/ecoj.12555
- Durrmeyer, I. (2021). Winners and losers: The distributional effects of the french feebate on the automobile market. *The Economic Journal*, *132*(644), 1414–1448. https://doi.org/10.1093/ej/ueab084
- Durrmeyer, I., & Martínez, N. (2023). *The welfare consequences of urban traffic regulations* (Discussion Paper No. 18332). CEPR. Paris & London. https://cepr.org/publications/dp18332
- Grigolon, L., Reynaert, M., & Verboven, F. (2018). Consumer valuation of fuel costs and tax policy: Evidence from the european car market. *American Economic Journal: Economic Policy*, *10*(3), 193–225. https://doi.org/10.1257/pol.20160078
- Heid, P., Remmy, K., & Reynaert, M. (2024). *Equilibrium effects in complementary markets: Electric vehicle adoption and electricity pricing* (Working Paper). https://www.dropbox.com/scl/fi/8vnkd1aw2lsjeog23wrvz/EV-paper-HRR-28-10-2024.pdf?rlkey=a8ecpdkz91tg75rgamqfyqnpr&e=1&dl=0
- Ito, K., & Sallee, J. M. (2018). The economics of attribute-based regulation: Theory and evidence from fuel economy standards. *The Review of Economics and Statistics*, *100*(2), 319–336. https://doi.org/10.1162/rest_a_00704
- Johansen, B. G., & Munk-Nielsen, A. (2022). Portfolio complementarities and electric vehicle adoption
- Leard, B., Linn, J., & Springel, K. (2025). Vehicle Attribute Tradeoffs and the Distributional Effects of US Fuel Economy and Greenhouse Gas Emissions Standards
- Rapson, D., & Muehlegger, E. (2023). Global transportation decarbonization. *Journal of Economic Perspectives*, *37*(3), 163–88. https://doi.org/10.1257/jep.37.3.163

- Remmy, K. (2025). Subsidy design when firms can adjust product attributes: The case of electric vehicles [Forthcoming]. *American Economic Journal: Economic Policy*
- Reynaert, M. (2020). Abatement strategies and the cost of environmental regulation: Emission standards on the european car market. *The Review of Economic Studies*, *88*(1), 454–488. https://doi.org/10.1093/restud/rdaa058
- Springel, K. (2021). Network Externality and Subsidy Structure in Two-Sided Markets: Evidence from Electric Vehicle Incentives. *American Economic Journal: Economic Policy*, *13*(4), 393–432. https://doi.org/10.1257/pol.20190131

10. **Retail Markets: Competition and Pricing** (1 session)

- Bernard, L., Hackett, A., Metcalfe, R. D., Panzone, L. A., & Schein, A. R. (2025, May). *The impact of dynamic prices on electric vehicle public charging demand: Evidence from a nationwide natural field experiment* [Netzero Working Paper]. https://www.centrefornetzero.org/papers/the-impact-of-dynamic-prices-on-electric-vehicle-public-charging-demand-evidence-from-a
- Borenstein, S. (2012a). The Redistributional Impact of Nonlinear Electricity Pricing. *American Economic Journal: Economic Policy*, *4*(3), 56–90. https://doi.org/10.1257/pol.4.3.56
- Borenstein, S. (2007a). Customer Risk from Real-Time Retail Electricity Pricing: Bill Volatility and Hedgability. *The Energy Journal*, *28*(2), 111–130. https://doi.org/10.5547/ISSN0195-6574-EJ-Vol28-No2-5
- Borenstein, S. (2007b). Wealth Transfers Among Large Customers from Implementing Real-Time Retail Electricity Pricing. *The Energy Journal*, *28*(2), 131–150. https://doi.org/10.5547/ISSN0195-6574-EJ-Vol28-No2-6
- Borenstein, S. (2019, March). Charging with the Sun [Blog post, Energy at Haas]. https://energyathaas.wordpress.com/2019/03/11/charging-with-the-sun/comment-page-2/
- *Borenstein, S., & Holland, S. (2005). On the Efficiency of Competitive Electricity Markets with Time-Invariant Retail Prices. *The RAND Journal of Economics*, *36*(3), 469–493. http://www.jstor.org/stable/4135226
- Bollinger, B. K., & Hartmann, W. R. (2019). Information vs. Automation and Implications for Dynamic Pricing. *Management Science*, *66*(1), 290–314. https://doi.org/10.1287/mnsc.2018.3225
- Byrne, D. P., Martin, L. A., & Nah, J. S. (2022). *Price Discrimination by Negotiation: A Field Experiment in Retail Electricity* [Available at SSRN]. http://dx.doi.org/10.2139/ssrn.3352209
- Dressler, L., & Weiergraeber, S. (2023). Alert the Inert? Switching Costs and Limited Awareness in Retail Electricity Markets. *American Economic Journal: Microeconomics*, *15*(1), 74–116. https://doi.org/10.1257/mic.20190163

- *Fabra, N., Rapson, D., Reguant, M., & Wang, J. (2021). Estimating the Elasticity to Real-Time Pricing: Evidence from the Spanish Electricity Market. *AEA Papers and Proceedings*, *111*, 425–29. https://doi.org/10.1257/pandp.20211007
- Hortaçsu, A., Madanizadeh, S. A., & Puller, S. L. (2017). Power to Choose? An Analysis of Consumer Inertia in the Residential Electricity Market. *American Economic Journal: Economic Policy*, *9*(4), 192–226. https://doi.org/10.1257/pol.20150235
- *Jessoe, K., & Rapson, D. (2014). Knowledge Is (Less) Power: Experimental Evidence from Residential Energy Use. *American Economic Review*, *104*(4), 1417–38. https://doi.org/10.1257/aer.104.4.1417
- Joskow, P. L., & Wolfram, C. D. (2012). Dynamic Pricing of Electricity. *American Economic Review*, *102*(3), 381–85. https://doi.org/10.1257/aer.102.3.381
- *Reguant, M., Fabra, N., & Wang, J. (2026). The distributional impacts of time-varying electricity pricing: A novel approach to estimating household income. *Journal of the European Economic Association*. https://doi.org/None

11. **Distributional and Socio-Economic Effects of Climate and Energy Policies** (1 session)

- * Fabra, N., Gutiérrez, E., Lacuesta, A., & Ramos, R. (2024). Do renewable energy investments create local jobs? *Journal of Public Economics*, *239*. https://doi.org/https://doi.org/10.1016/j.jpubeco.2024.105212
- Fabra, N., & Kiribrahim-Sarikaya, O. (2026). *Renewable Energies, Migration and Local Finances* [Work in progress]
- Fabra, N., et al. (2025a). *The End of Coal: Assessing Labor Market Transitions in Coal-Dependent Regions* [Work in progress]
- *Fabra, N., Leblanc, C., & Souza, M. (2025b). Unpacking the distributional impacts of the energy crisis: Lessons from the iberian electricity market. Retrieved August 18, 2025, from https://nataliafabra.org/wp-content/uploads/2025/08/Energy_Crisis_Paper.pdf
- Hahn, R. W., & Metcalfe, R. D. (2021). Efficiency and Equity Impacts of Energy Subsidies. *American Economic Review*, *111*(5), 1658–88. https://doi.org/10.1257/aer.20180441
- Hanson, G. H. (2023, January). *Local labor market impacts of the energy transition: Prospects and policies* (NBER Working Papers No. 30871). National Bureau of Economic Research, Inc. https://doi.org/None
- Kiribrahim-Sarikaya, O., & Qiu, Y. L. (2025). *Distributional effects of residential solar subsidies* (tech. rep.). mimeo. https://ozgenkiribrahim.com/publication/solar_paper/
- *Reguant, M., Fabra, N., & Wang, J. (2026). The distributional impacts of time-varying electricity pricing: A novel approach to estimating household income. *Journal of the European Economic Association*. https://doi.org/None

- *Reguant, M. (2019). The Efficiency and Sectoral Distributional Implications of Large-Scale Renewable Policies. *Journal of the Association of Environmental and Resource Economists*, *6*(S1), S189–S208. https://doi.org/10.1086/701190
- Borenstein, S., & Davis, L. W. (2025). The distributional effects of us tax credits for heat pumps, solar panels, and electric vehicles. *National Tax Journal*, *78*(1), 263–288
- Bruegge, C., Deryugina, T., & Myers, E. (2019). The distributional effects of building energy codes. *Journal of the Association of Environmental and Resource Economists*, *6*(S1), S95–S127
- Levinson, A. (2019). Energy efficiency standards are more regressive than energy taxes: Theory and evidence. *Journal of the Association of Environmental and Resource Economists*, *6*(S1), S7–S36