ENERGY EXACTIONS*

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This Article proposes a novel reform to land use and energy law: “energy exactions”—local fees or timing limits addressing the energy impacts of new development. Energy exactions would force developers to internalize the costs of growth on the energy grid, decentralize risk taking, and induce greater energy conservation.

This Article defends the implementation of energy exactions by local governments, and analyzes the potential legal hurdles energy exactions face. Energy exactions provide local governments a valuable tool to integrate community values into energy grid planning, promote demand reduction, and enable new investments in low-carbon energy infrastructure.

INTRODUCTION

New residential and commercial developments often create costs in the form of congestion and burdens on municipal infrastructure. Citizens typically pay for infrastructure expansion associated with growth through their property taxes, but local governments sometimes use cost-shifting tools to force developers to pay for—or provide—new infrastructure themselves.¹ These tools are forms of “exactions”—demands levied on developers to force them to pay for the burdens new projects impose.²

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² See, e.g., Mark Fenster, Takings Formalism and Regulatory Formulas: Exactons and the Consequences of Clarity, 92 CAL. L. REV. 609, 611 (2004).
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But local governments often ignore an additional cost: the burdens growth present for energy infrastructure. Energy demand growth requires new supply but expanding power generation is costly. It requires land, access to transmission lines, and presents a range of potential environmental harms. Forcing developers to internalize costs they impose on energy infrastructure would encourage them to incorporate greater consideration of the impacts of energy supply and energy efficiency \textit{ex ante}.\footnote{See, e.g., Timothy S. Chapin, \textit{Local Governments as Policy Entrepreneurs: Evaluating Florida’s “Concurrency Experiment,”} 42 URB. AFF. REV. 505, 507, 519–27 (2007); Robert M. Rhodes, \textit{Florida Growth Management: Past, Present, Future}, 9 FLA. COASTAL L. REV. 107, 119 (2007).}

This Article argues that energy exactions are normatively desirable, evaluates how they can help improve land use and energy regulation, and assesses the legal implications and limits of their use. We detail two different forms of energy exactions: one that imposes pre-set prices on anticipated kilowatt energy demand and one that is focused on how the timing of a development affects energy infrastructure development (often called “concurrency”).\footnote{See, e.g., Robert C. Ellickson et al., \textit{Land Use Controls} 670 (4th ed. 2013).}

I
THE EXISTING LANDSCAPE

A. Land Use Exactions

Zoning and land use controls have become important tools for financing municipal infrastructure.\footnote{See, e.g., Mark Fenster, \textit{Regulating Land Use in a Constitutional Shadow: The Institutional Contexts of Exactions}, 58 HASTINGS L.J. 729, 730 n.7 (2007).} Sophisticated municipalities treat zoning regulations as opportunities to compel developers to bear some of the public costs of development through exactions.\footnote{See, e.g., Mark Fenster, \textit{Regulating Land Use in a Constitutional Shadow: The Institutional Contexts of Exactions}, 58 HASTINGS L.J. 729, 730 n.7 (2007).}

Exactions include fees in lieu of dedications of land as well as impact fees to upgrade transportation infrastructure, fund public school expansions, build or finance an expansion of emergency services, and even pay for beautification. Sometimes they are imposed through ad hoc dealmaking; other times they are established through municipal legislation as pre-set “prices” for obtaining permission to build.

Exactions raise complex policy issues because they shift the costs of infrastructure improvements from the jurisdiction’s tax base as a whole to developers who, in turn,
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often pass those costs on to consumers of new housing or new commercial space. Nevertheless, exactions are in important part of the municipal finance landscape. By and large, however, municipalities have not used them to shift the costs of developing energy infrastructure to meet the demands of new development. This is a missed opportunity.

B. Traditional Energy Planning

Traditional energy planning spreads the costs of growth broadly among all of utility’s retail customers. The conventional energy planning process relies on a private utility presenting demand forecasts to regulators. Utility regulators then evaluate options for expanding supply infrastructure to meet the utility’s forecasted customer load.

1. Top-Down Energy Resource Capacity Planning

The traditional approach has proved ineffective, especially in addressing the broad range of concerns that expanding energy use present for climate change. Cost-of-service regulation incentivizes utilities to overstate their need for centralized, capital-intensive power generation assets and rarely penalizes errors in forecasting of demand growth. This approach forces a utility’s investors and its customers—not necessarily the local community that benefits from growth—to bear the burden of any change in power supply resources.

2. Customer Savings as an Energy Resource

The failure to recognize the potential of customers as energy resources is a major omission in traditional utility-scale energy planning. Particularly with new technologies that allow

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7 We use the term “utility” broadly, to include both municipally-owned utilities and investor-owned utilities. For purposes of simplification, we assume that either form of a utility is primarily motivated by covering the costs of its operations, which for the investor-owned utility includes a profit margin.
8 We also use the term “energy regulators” broadly. For investor-owned utilities, the regulator is typically a state public utility commission. We assume regulators are primarily motivated to pursue the public interest in making decisions about energy supply, which includes providing customers low cost, reliable energy.
better informed consumer decisions, customer behaviors can considerably impact the need for new energy supply.\(^{11}\)

In recent years, both energy markets and regulators are increasingly recognizing customers as forms of energy resources. FERC has adopted pricing for demand response in organized wholesale power markets.\(^{12}\) Some states, including California and Oregon, have made efforts to integrate local land use planning into state-level energy planning with an emphasis on customer energy savings and new power supply options.\(^{13}\) Several states have also begun to experiment with “community choice aggregation”—a new kind of retail electricity provider enabling customers in certain communities to choose different (sometimes low carbon) energy supply options than a utility’s default.\(^{14}\)

Energy exactions would complement these recent market and regulatory approaches. Local regulators are particularly well-positioned to adopt these requirements especially where state regulators have failed to anticipate the state’s future energy needs in the utility planning process or fall short of evaluating energy needs based on a full social cost approach.\(^{15}\)

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II
EXACTIONS AS A NEW POINT OF ENTRY FOR ENERGY PLANNING

A. The Mechanics of Energy Exactions

We envision a set price per kWh of anticipated annual energy usage as a one-time exaction charged to the developer as a condition on development.\footnote{That number, comes from the combined cost of supplying new energy in the relevant local market and the anticipated energy impact of the new construction.} A developer could reduce that impact fee by shrinking house sizes or by deploying building techniques and technologies that would reduce the anticipated annual energy demand of new buildings. The local government can use money collected from exactions to minimize energy impacts in other places within the municipality. Properly priced, new development will ultimately not increase energy demand for the municipality.

But the primary objective is not to collect additional money. Instead, by pricing the marginal increase in energy demand, developers will have an incentive to reduce energy consumption to the extent that it is cost-effective. New business and commercial activities would not be allowed to “externalize” energy resource costs to the larger footprint of a utility’s full customer resource base.

An alternative form of exaction can be implemented through a “concurrency” regime, which seeks to align the timing of development and infrastructure expansion.\footnote{“Concurrency” refers to the notion that several simultaneous computations can have interactive costs and benefits for an information processing system. See Xuan Shi & Miaoqing Huang, Cyberinfrastructure and High Performance Computing, in COMPREHENSIVE GEOGRAPHIC INFO. SYS. 341, 349 (Bo Huang, ed. 2017).} Concurrency applied to energy would see a municipality first plan for some increase in energy demand, and then limit new development to ensure that net demand does not exceed this capacity. A developer wanting to accelerate a project could pay to accelerate the expansion of energy capacity, or could reduce the energy demand associated with the project.

Concurrenty adds flexibility by anticipating increases in energy demand not subject to exactions. It only requires fees for growth beyond the pre-specified limits. A municipality can decide what is a reasonable expansion of energy demand instead of treating demand as entirely exogenous.

One advantage of such an approach would be to place a burden on developers of following through on energy savings...
commitments related to growth. For example, if a developer proposes to adopt energy savings technologies, it should be required to demonstrate the expected energy savings with some evidence-based justifications for these expected reductions in energy usage. And if some of the approaches to energy savings included in its new projects have a lifespan—like the use of energy-efficient appliances that will ultimately be replaced—developers might be required to place restrictive declarations on the deeds requiring that replacements meet certain energy benchmarks.

One of the most important benefits of our proposal may be the least obvious. One way of thinking of energy savings is as a “negawatt”—a unit of energy that no longer needs to be produced due to a reduction in demand represented by conservation. Energy exactions can create new forms of economic value surrounding energy conservation. In many areas of the country, energy intermediaries already bundle and sell into interstate energy markets the energy savings produced by pools of customers. Developers or municipalities could operate in precisely the same way, potentially selling the energy resources resulting from increased conservation to utilities. Alternatively, municipal regulators or city governments may be positioned to aggregate individual customer savings and sell these resources to others.

Municipal ownership of a utility is a decision by a community to avoid “contracting out” decisions about energy supply. This kind of utility municipalization has many benefits, but is costly and often faces political obstacles: Energy exactions would enable developers, neighborhood

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18 One notable aspect of this proposal is how it shifts the traditional burden of establishing the pricing for exactions. John D. Echeverria, Koontz: The Very Worst Takings Decision Ever?, 22 N.Y.U. ENVTL. L.J. 1, 53 (2014).

19 See N.Y.C. BLDGS. DEPT', BUILDINGS BULLETIN 2015-008, (Apr. 3, 2015), https://www1.nyc.gov/assets/buildings/bldgs_bulletins/bb_2015-008.pdf [https://perma.cc/8WHT-25WM]. Enforcement of such restrictive declarations can be complicated, so the imposition of such declarations may not be worth the candle. Regardless, the anticipated energy savings over the course of the average appliance’s lifespan will likely be significant enough to justify including in the calculation of annual energy savings.


alliances, and localities to become players in energy supply markets, without requiring ownership of a large-scale energy supply system or the burdensome cost a locality needs to incur to become a municipal utility.\textsuperscript{23}

B. Informational Benefits for Regulators and Markets

Energy exactions can also produce valuable new information to improve existing approaches to energy planning and pricing. The full social costs associated with energy are absent from most competitive energy prices.\textsuperscript{24} If genuinely competitive, interstate markets should price energy at its marginal cost of production and investment in energy infrastructure should reflect this pricing criterion.

In rate-setting, regulators often fail to set prices that produce the information necessary for efficient energy consumption. Regulators typically calculate market rates based on full operational costs, averaged across all customers. This means that utility rates are more likely to reflect a utility’s average cost of production, rather than the marginal costs associated with each new customer.

Utilities have also done a poor job of making investments that address the negative environmental attributes of various energy sources associated with climate change.\textsuperscript{25} To the extent the utility planning and ratemaking process does not require utilities to quantify the social cost impacts of customer activities that require energy, it will tend systematically to favor the investment that increases a utility’s sales—not the investment that produces more diffuse benefits for society.\textsuperscript{26}

Municipal exactions aim directly at the marginal energy impacts of each new land use, so they can produce valuable information about the various options new customers face, including how much energy they will consume, when they will need it, and whether they can commit to reducing demand for energy.


\textsuperscript{25} Remediying this problem is one of the motivating intuitions behind Byrne & Zyla’s work. See J. Peter Byrne & Kathryn A. Zyla, Climate Exactions, 75 MD. L. REV. 758 (2016).

\textsuperscript{26} Many states authorize utilities to allocate the costs of expanding distribution lines to new customers; such charges, however, typically do not allocate the energy supply costs associated with new customers to them.
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it or investing in distributed energy resources. They will thus help to induce more efficient energy investment decisions than relying entirely on inaccurate investment signals produced by cost-of-service regulation.

C. Risk Diversification and Regulatory Competition

Energy exactions will favor decentralized cost allocation by forcing energy customers to bear costs of new energy supply resources. Distributing the risks of new investments can help break through some of the asset lock-in related to centrally planned utility energy supply. Diversifying the financial risks of energy infrastructure investment is also likely to improve the energy resource balance in the power supply portfolio and improve reliability through greater grid resiliency.

Local governments adopting energy exactions would spark greater horizontal competition between local communities too. Our approach should see energy prices for incumbent users decline as system-wide improvements will be borne more by newcomers. If those costs take the form of “nega-watts” then everyone in the municipality or service area should benefit, providing a competitive advantage.

Finally, local energy exactions should increase vertical intergovernmental competition between municipal governments and state utility regulators. Any fees a municipality collects can be used to produce energy savings elsewhere in the municipality. If a utility wishes to keep these rents, it will lobby regulators to adopt exactions in utility rates or in statewide requirements. To the extent that state regulators receive new information, this can improve the quality of centralized planning and make it less likely that regulators will adhere to ratemaking approaches that fail to recognize the benefits of customer energy resources.

D. The Local Case for Energy Exactions

An exaction is the functional equivalent of a tax on development, raising the costs of construction in a municipality that adopts energy exactions vis-à-vis a

\footnote{Compare, e.g., Home Builders Ass’n of Lincoln v. City of Lincoln, 711 N.W.2d 871, 876–79 (Neb. 2006) (holding that impact fees are not taxes requiring state approval), with Mayor & Bd. of Aldermen of Ocean Springs v. Homebuilders Ass’n of Miss., 932 So.2d 44, 53 (Miss. 2006) (rejecting power of local government to impose impact fees without express authorization). For a helpful overview of the issue, see W. Andrew Gowder, Jr. & Bryan W. Wenter, Exactions and Impact Fees 2007: The Limits of Local Authority, 39 URB. LAW. 645, 646–53 (2007).}
neighboring municipality that does not. Nevertheless, exactions remain a common part of the development landscape, and local governments use them despite (or sometimes because of) the fact that they increase costs of development. Some number of local governments are likely to find our proposal appealing. Many local governments today are keenly interested in promoting an environmental identity.

Exactions could prove especially attractive to local governments seeking to promote clean energy, spur local economic growth in clean energy, and attract new industries.

There is admittedly some tension between our proposal and issues of exclusion and affordability. Exactions have the potential to effect exclusionary policies because they can shift costs to newcomers. This makes them troubling to affordable housing advocates and prospective residents. Nevertheless, we think the benefits of forcing developers to internalize burdens of new development on energy infrastructure are worth the costs.

Exactions’ appeal will depend in large part on who actually bears their ultimate cost. Local economic conditions and the

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28 This is a substantial political constraint on local governments imposing exactions. For a detailed account, see Vicki Been, “Exit” as a Constraint on Land Use Exactions: Rethinking the Unconstitutional Conditions Doctrine, 91 COLUM. L. REV. 473, 506–28 (1991).

29 Driving up the cost of development can be appealing to local governments seeking to restrict growth and limit the supply of new housing, often in the service of Not-in-My-Backyard (“NIMBY”) pressures towards exclusionary zoning. See, e.g., Christopher Serkin & Leslie Wellington, Putting Exclusionary Zoning in its Place: Affordable Housing and Geographical Scale, 40 FORDHAM URB. L.J. 1667, 1669–73 (2013).


33 See id.; see also Vicki Been, Impact Fees and Housing Affordability, 8 CITYSCAPE 139, 148–49 (2005).
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availability of substitute municipalities with different pricing will determine where the costs of energy exactions ultimately fall.34

III
LEGAL OBSTACLES TO ENERGY EXACTIONS

We see three potential legal obstacles to energy exactions, though none present a serious threat to their adoption by local governments.

A. State Authorization

Twenty-one states have no express enabling legislation allowing development fees, nor any prohibitions on such fees. In home-rule jurisdictions in these states, there would be no statutory constraint on the use of energy exactions, and municipalities would have the authority to implement our proposal today.35

As of 2015, twenty-nine states had adopted enabling acts for local development fees.36 Of these, both California and Utah explicitly allow the use of exactions for the impact on power generation and distribution.37 In the remaining states with enabling legislation, most provide that exactions can only be used to address pre-specified public service needs, facilities, or capital improvements related to development. This would probably exclude energy exactions. In other states, enabling statutes place restrictions on the use of the exactions and not on the nature of the burdens themselves, but the effect is the same.

Thus, municipalities relying on these statutes to authorize local impact fees may require clarifying legislation that extends exactions to energy related activities.

34 See id., at 149.
37 CAL. GOV’T CODE § 66002 (West 2007) (defining “facility” or “improvement” to include “[f]acilities for the generation of electricity and the distribution of gas and electricity”); UTAH CODE ANN. § 11-36a-102 (West 2014) (defining “public facilities” for which exactions are permissible to include “municipal power facilities”).
B. Intrastate Preemption

State public utility commissions might present potential “intrastate” preemption challenges to local government-imposed energy exactions, but these too do not present a barrier to their adoption.38

To begin, some state laws expressly preempt local governments from making some energy supply decisions. For example, to the extent that an energy siting statute contains an “express” preemption clause, a local government’s refusal to issue land use approvals would be preempted. However, nothing in such statutes would prohibit a local government from limiting customer demand growth, collecting new forms of revenue from customers, or using this revenue to promote investments in distributed energy supply or services.39

The implied dimension of intrastate preemption includes field, obstacle, and conflict preemption. However the field is defined, the mere existence of state utility regulation—including rate regulation—does not categorically prohibit municipal governments from using taxes, fees or regulation to address energy incentives related to energy consumption and supply. Energy exactions merely regulate development to minimize new energy demand.

If state rate regulation were construed as field preemption of energy exactions, it would also threaten existing local government renewable power goals, energy efficiency standards, and economic development programs. Yet no one suggests that these initiatives are preempted by state law.

Local energy exactions initiatives thus need to be evaluated under the more nuanced analysis of obstacle and conflict preemption.

Consider “obstacle” preemption. Assessing whether state

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39 Some state siting statutes are expansive in scope, limiting who can produce energy regardless of size and sometimes prohibiting third-parties from developing new projects that produce and sell energy, so it is certainly conceivable that some customers or local governments would need to seek state approval for certain power generation activities. For a particularly troubling recent case applying a state utility law to keep a church from placing solar panels on its roof, see State ex rel. Utilities Commission v. North Carolina Waste Awareness & Reduction Network, 805 S.E.2d 712, 714 (N.C. Ct. App. 2017) (finding third-party solar provider was illegally acting as a “public utility” by agreeing to provide and maintain solar panels to a church), aff’d, 812 S.E.2d 804 (N.C. 2018). These state law barriers to new entrants can be a significant drag on renewable power development but promoting more small-scale, decentralized solar deployment is one way to overcome some of these legal barriers to renewable power.
utility regulation presents an obstacle to energy exactions requires articulating the regulatory objectives behind state franchise regulation and retail rate-setting laws. Utility franchise regulation protects customers against distribution franchise battles that produce unnecessary investments. Energy exactions offer local governments a more modest option.

Rate regulation could also potentially be invoked to challenge exaction fees. By imposing an exaction on a subset of customers, some might object that local land-use regulators supplementing rates with a fee that applies only to newcomers could interfere with uniform utility rates. Energy exactions supplement rate regulation, however, and hence do not present an obstacle to a utility recovering reasonable costs from customers. That one customer incurs greater ultimate costs than others should not, in itself, be determinative of the kind of rate discrimination that requires local government preemption.40

In terms of conflict preemption, rate regulation could present a clear conflict if a local government capped state-approved rates for the sale of energy or prohibited a private utility from recovering costs. But energy exactions do neither of these things: Since they do not impose any additional financial cost on the utility or other customers, energy exactions simply do not conflict with state regulation of utility rates.

In another framing, intrastate preemption, at most, would constitute conflict preemption where state law creates a floor for setting energy rates but does not impose a ceiling that would prohibit the use of energy exactions to encourage new forms of energy efficiency or decentralized power supply.41 Treating state utility law as a regulatory floor encourages local governments to partner with state regulators to promote energy conservation and clean energy supply.

C. Takings and Unconstitutional Conditions

For state utility regulators setting customer rates, the U.S. Constitution’s Takings Clause provides few constraints. Courts have consistently subjected utility rate-setting decisions to a


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fairly deferential standard of review. By contrast, energy exactions implicate a distinct doctrinal line of case law involving the unconstitutional conditions doctrine. The application of this doctrine to exactions is governed by a trio of cases: Nollan v. California Coastal Commission, Dolan v. City of Tigard, and Koontz v. St. Johns River Water Management District. Together, these cases establish that any development exactions must be sufficiently related to, and proportional to, the underlying justification for the exaction.

It is an open question whether the Nollan/Dolan/Koontz trio even applies to legislated exactions. Several courts have held that the Nollan/Dolan framework does not apply to legislative exactions at all.

If they do apply to legislated exactions, the requirements of Nollan, Dolan, and Koontz are relatively rigorous. Analogous state laws sometimes make them even more so. Still, these doctrines leave plenty of room for the traditional use of exactions. Exactions that require developers to compensate for marginal effects of their development on municipal infrastructure will withstand constitutional scrutiny so long as the government can make an adequate showing of proportionality.

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42 In a landmark 1944 decision, the U.S. Supreme Court adopted a deferential approach to reviewing utility rates under the U.S. Constitution. See Fed. Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591, 602-03, 615–19 (1944). The Supreme Court’s most recent decision on this issue continued with a deferential approach to reviewing a takings challenge to rates, upholding a regulator’s utility rate determinations so long as the end result is just and reasonable and the firm remains viable for future investors. See Duquesne Light Co. v. Barasch, 488 U.S. 299, 315–16 (1989).

48 For discussion of the contrast between judicial approaches to constitutional review of utility ratemaking versus local land use regulation, see Susan Rose-Ackerman & Jim Rossi, Disentangling Deregulatory Takings, 86 Va. L. Rev. 1435, 1441–57 (2000).
49 See, e.g., Fenster, supra note 5, at 736.
50 See, e.g., Herron v. Mayor & City Council of Annapolis, 388 F. Supp. 2d
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CONCLUSION

At bottom, energy exactions present land use regulators with an important opportunity to capture a portion of the rents that traditional state utility regulation bestows upon a private investor-owned utility. Local energy exactions can produce valuable information about customer energy demand and its alternatives, diversify risks in energy infrastructure investment, and promote intergovernmental competition for the provision of underfunded public goods related to a community’s energy future.

The conventional state utility-planning and rate-setting process is often said to produce concentrated benefits for the few at the expense of the many. It has done a poor job of encouraging demand reduction, distributed energy supply, and a resilient energy grid. Energy law should encourage every locality to focus on how its own management and uses of land impact the energy system, not leave municipal governments as bystanders in policy decisions related to energy infrastructure. Energy exactions provide a unique, pragmatic and valuable opportunity to integrate local community values into planning discussions concerning the energy grid, promoting demand reduction and inviting new investments in low-carbon energy infrastructure.

565, 570–71 (D. Md. 2005), aff’d sub nom. Herron v. Mayor & City Council, 198 F. App’x 301 (4th Cir. 2006) (upholding as proportional an impact fee ordinance that collected and distributed funds on a district-wide basis).