



Advancing U.S. Innovation by Reforming Patent and R&D Policy

DECEMBER 13, 2017

BROOKINGS



Promoting Energy Innovation with Lessons from Drug Development

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Innovation in energy and pharmaceuticals

- Expensive and long-term undertakings
- Implications for human health
- Special conditions for energy
 - Environmental externalities
 - Broad categories with many types of products

We offer three ways energy innovation could improve, inspired by conditions in pharmaceutical innovation



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1. Contract research services

- Cash-constrained startup companies could access specialized equipment at user facilities
- Facilities can support regional economies by tailoring services to local strengths
- National Labs are a good starting point



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2. Technical standards

- FDA Phases provide investors with information about performance and reliability of pharmaceutical products
- Within a subcategory of energy technologies, uniform performance standards can minimize uncertainty
- Standards need not be government-enforced to be publicly supported



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3. Direct financial incentives

- Orphan Drug Act illustrates the power of public incentives to spur innovative activity
- Regulation of electricity prices stifles competition on energy efficiency
- Provide financial incentives for utilities to make investments in demonstrations and pilot projects to explore and adopt new technologies



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