

Practical Energy Plan of 2011
Senator Dick Lugar

Save Money. Drop Foreign Oil.

Senator Dick Lugar's Practical Energy Plan proposes a path to dramatically reduce American dependence on foreign oil while saving American families and businesses money. These security and economic priorities are shared by Hoosiers and Americans regardless of geography or political affiliation.

Breaking our foreign oil dependence requires boosting domestic oil sources, maximizing fuel efficiency through innovation (thus decreasing pain at the pump), and enabling use of alternative fuels from diverse domestic sources.

Consumers and businesses will reduce their energy costs by aggressive attention to energy efficiency, including long-term frameworks to encourage investment in efficiency innovation and programs to achieve immediate savings.

The Practical Plan offers real progress on energy-driven national security and economic crises. Independent analysis of the bill indicates the following savings by 2030¹:

- **Reducing need for foreign oil by 6.3 million barrels/day, or more than 50%,**
- **Saving Americans \$33 billion annually by cutting 4% off projected energy needs, and**
- **Cut government spending by \$1.8 billion annually, generate up to \$170 billion in Federal revenues from enhanced oil recovery, and cut our trade deficit by more than \$215 billion annually.**

The Lugar Practical Energy Plan encourages job-creating economic growth, improves U.S. global competitiveness, and strengthens environmental stewardship by placing the emphasis on the more productive use of energy in transportation and electricity to cut energy needs.

In formulating the Practical Plan, Senator Lugar used a data-driven approach favoring demonstrated policies that maximizes 'bang for the buck' – making wise use of U.S. resources with minimal fiscal impact. By reforming unpredictable regulatory hurdles, long-term flexible frameworks will encourage U.S. private investment to promote jobs. Where new programs are offered, fiscal responsibility is maximized by using self-sustaining loan programs, public-private partnerships to leverage private investment, and oil investments that will generate future revenue. Reform of how Federal agencies use energy will reduce spending by billions while also increasing the flexibility of our defense and civilian agencies.

The Practical Energy Plan targets specific regulatory failures and shortcomings in financial and energy markets – creating a more secure and economically sound America. Through coordination with other Senate offices, it identifies a clear, consistent, and comprehensive set of policies backed by solid analysis.

¹ Based on independent analysis by ClimateWorks Foundation and McKinsey & Co. (www.climateworks.org).

Savings are expected to exceed a 50% reduction in the need for foreign oil by 2030 and save Americans more than \$33 billion annually.

Goal 1: Reduce U.S. Vulnerability to Foreign Oil

✓ Up to 6.3 million barrels per day less foreign oil will be needed

EXPANDING DOMESTIC OIL PRODUCTION

Putting carbon dioxide to use for increasing oil production (Sec 101)

- ✓ **What it does...** Increases domestic oil production by encouraging the build-out of national infrastructure to dramatically increase 'enhanced oil recovery,' which uses carbon dioxide. A fixed allotment of tax cuts for manufacturers and power generators will catalyze upfront investment and will be awarded in a competitive fashion, encouraging low-costs. This jumpstart program is estimated to generate up to \$170 billion in Federal revenue, much more than the amount of taxes cut. A revenue-generating failsafe is included to strengthen taxpayer benefit.
- ✓ **Why it's important...** From 38 to 58 billion barrels of oil could be available through proven enhanced oil recovery methods according to the Department of Energy. An effective strategy to access that potential requires usage of copious man-made CO₂ resources and national pipelines to connect the CO₂ with the oil deposits. By facilitating national infrastructure build out, oil production will increase and generate more economic activity and taxable income. This is a win-win-win proposition for domestic oil production, environmental stewardship, and fiscal responsibility with the opportunity to net \$150 billion in Federal revenues through 2030.

1.8 million
barrels per day
of new U.S. oil
from EOR

Reverses Obama Administration 'permit moratorium' on domestic oil (Sec 102)

- ✓ **What it does...** Puts Gulf of Mexico oil production back on track by requiring the Interior Secretary to set a plan to act on drilling permits, half of which must be acted upon within 75 days and all of which must be acted upon within 135 days.
- ✓ **Why it's important...** The Obama Administration is slow-walking permits for the Gulf of Mexico. The U.S. Energy Information Administration projects a decrease in oil production by 200,000 barrels per day in 2011 and another 140,000 in 2012, half of which is attributable to the permit moratorium.

Safeguards for drilling (Sec 103)

- ✓ **What it does...** Facilitates the expansion of offshore oil production by strengthening oversight of safety and environmental preparedness for new areas of production.
- ✓ **Why it's important...** As we promote expanded use of domestic oil resources in new locations, we also need to ensure that safety and environmental safeguards and response mechanisms are in place.

1.1 million barrels per day of new U.S. oil from offshore (Sec 102-106)

Restoring offshore oil lease sales (Sec 104)

- ✓ **What it does...** Restores lease sales for blocks in the Gulf of Mexico and offshore Virginia that were set to be leased before being stopped by the Obama Administration.
- ✓ **Why it's important...** The oil and gas industry works on long-time horizons, so the Obama Administration's failure to allow investment today will have repercussions for decades to come. Leasing areas included in this provision had been planned and had environmental assessments complete, and future drilling permits would have enhanced safeguards under Sec 103 of this Act.

Fair treatment for Alaska permits (Sec 105)

- ✓ **What it does...** Gives Alaska equal treatment as the Gulf of Mexico by vesting authority with the Department of Interior to issue air permits for oil production facilities.
- ✓ **Why it's important...** Alaskan oil production is currently treated unfairly by requiring EPA to issue air permits, creating unnecessary delays in U.S. oil development.

Offshore resource review (Sec 106)

- ✓ **What it does...** Requires Federal planning to evaluate and plan expansion of oil and gas production off the coast of Alaska (which currently is not scheduled for future lease sales) and other offshore areas at the request of a Governor. It also encourages the private sector to invest in seismic measurements of offshore resources, much of which is out of date.
- ✓ **Why it's important...** Good planning requires good information, and much of the data on U.S. offshore resources is not complete. This is particularly important in Alaska, which is the single largest oil production state in the U.S., but production is falling to levels that risk forcing closure of the critical Trans-Alaska Pipeline. Investing in future production requires planning now.

FUEL EFFICIENCY IN VEHICLES

Predictable improvements in fuel efficiency (Sec 111)

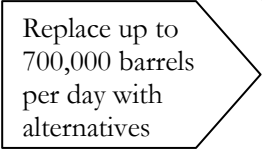
- ✓ **What it does...** Codifies fuel saving targets through 2016, and then provides long-term, predictable fuel efficiency targets of 4% or greater improvement per year, with safety valves in place to ensure cost-effectiveness for consumers. For medium and heavy-duty trucks, it ensures enactment of fuel efficiency standards by 2017 and every four years thereafter. These authorities work through the Department of Transportation, unlike EPA's rules based on greenhouse gas emissions, and regulatory burden will be reduced by aligning with rules on other traditional pollutants.
- ✓ **Why it's important...** Efficiency is the most widespread opportunity to reduce gasoline bills for consumers and to reduce need for oil. Auto companies face a highly uncertain regulatory environment for future model years (including rules based on detrimental EPA regulation of greenhouse

Save 2.7 million barrels of oil per day through efficiency

Save \$400 - \$550 a year in fuel costs.

gases and the prospect of future CAFE standard reversal that could leave investment stranded). Heavy-duty vehicles with a long history of pollution regulation by EPA will benefit from alignment of rules over predictable time frames to encourage innovation. The Practical Plan will mark a clear long-term trajectory for private sector innovation investment, without constant regulatory meddling and without favoring particular technologies. It will encourage innovation to both maximize usage of the internal combustion engine and to invest in more advanced technologies such as electric cars.

FUEL CHOICE



Replace up to 700,000 barrels per day with alternatives

Competitive advanced biofuels (Sec 121)

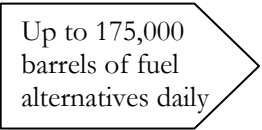
- ✓ **What it does...** Improves the current Sec. 942 (“reverse auction”) incentive program for advanced biofuels by making it technology neutral. It also clarifies that it cannot be used for fuels produced from grains, and it expands the authorization to up \$250 million per year.
- ✓ **Why it’s important...** This program is set up as a reverse auction, which is a more fiscally-responsible way to encourage low cost innovation in biofuels produced by diverse processes and from diverse feedstocks. The original authorization was too narrowly defined, thus limiting promising low-cost options.

Fuel options through dual-fuel vehicles (Sec 122)

- ✓ **What it does...** Enables fuel choice beyond gasoline. Flexible fuel options requirements will encourage development of vehicles using non-oil based fuels, such as electricity, natural gas, hybrids, and the capability for Americans to choose between regular gasoline or high blends of ethanol or methanol. A certification requirement is put in place to ensure only top-quality fuels are included.
- ✓ **Why it’s important...** Too few Americans have real choice in fuels. Meaningfully moving away from foreign oil requires ending oil’s monopoly on transportation. Even while we encourage new technologies, biofuels are the only major alternative to gasoline available today. An inexpensive fix to today’s engines to make them dual fuel capable (or flex fuel) will enable more freedom for Americans’ fuel choice in the near term. Meanwhile, even greater options can be made available through a clear certification process. Investing now is particularly important since high-quality American vehicles will be on the roads for decades to come.

FEDERAL LEADERSHIP IN ALTERNATIVES TO OIL

Department of Defense Alternative Fuels Contracting (Sec 131)



Up to 175,000 barrels of fuel alternatives daily

- ✓ **What it does...** Reduce the U.S. military’s dependence on oil by allowing purchase of alternative fuels made from domestic sources such as coal and biomass via long-term contracts which are required for private investors to produce the fuels.
- ✓ **Why it’s important...** American armed forces are the single largest U.S. consumer of petroleum, a fact that can put American troops and support

personnel at risk. It also makes military budgets highly vulnerable to price fluctuations. In 2011, DOD expects to spend \$14.1 billion on fuel – a price tag that does not count additional costs for safe delivery of the fuels. Every \$1 increase in the price of oil adds \$169 million in costs. Domestic alternatives will help reduce these oil-driven risks, and long-term contracts will enable private investment in the first commercial-scale alternative fuels production aimed at supporting America’s armed forces.

Fuels for national security agencies (Sec 132)

- ✓ **What it does...** Clarifies that a 2007 restriction on Federal agencies purchasing of liquid fuels based on greenhouse gas emissions criteria does not apply to agencies directly using those fuels for our national defense, but it encourages use of cleaner fuels when it makes sense.
- ✓ **Why it’s important...** National security agencies need fuel flexibility to meet our vital protection needs at low costs.

Saving money in Federal agency transportation (Sec 133)

- ✓ **What it does...** Expands successful cost-cutting programs to encourage private sector investment in energy efficiency upgrades at Federal property (known as ‘energy savings performance contracts’ or ESPCs) to transportation needs.
- ✓ **Why it’s important...** ESPCs reduce government expenditure by directly saving operating expenses through reduced energy bills and by eliminating direct government investment where the private sector can better shoulder the burden. Currently these savings are restricted to power usage in Federal buildings, but a joint study by the Department of Defense and Department of Energy found \$1 billion in potential annual savings by extending the program to transportation which would incentivize up to \$10 billion in private investment.

Save up to \$1billion each year in Federal spending

Goal 2: Save money and improve economic competitiveness by saving energy

- ✓ **Americans will save \$33 billion each year by saving 3.5 quadrillion BTUs of energy**

ENERGY PERFORMANCE IN BUILDINGS

Saving money in new buildings (Sec 201)

- ✓ **What it does...** Extends energy efficiency in construction of new homes and commercial buildings to bring more savings on power bills. Voluntary national model energy saving codes will be updated, and states will be encouraged to join the effort in their own jurisdictions, including with assistance in implementation. Establishment of this national model code with clear improvements over time will encourage investment and innovation in energy-savings materials and products that ultimately save consumers money.

Save half a quadrillion BTUs a year

- ✓ **Why it's important...** Homes and buildings use about 65% of electricity in this country. High-quality, American built homes and structures stay with us for decades, so it is important that we invest for the future. Less than 30% of homeowners are involved in the structural design of their home, meaning that they miss the opportunity to choose energy-savings options when they are cheapest to install. Although energy-saving measures cost a little more, they more than pay for themselves. Yet, too often the person paying the power bill is not the person who develops or owns the building. Higher energy performance will help correct that market failure and help protect American families and small businesses from unnecessary power costs.

Enabling home and building energy retrofits (Sec 202)

- ✓ **What it does...** Enables low-cost financing to help homeowners, small businesses, non-profits, or commercial facilities invest in cost-saving energy efficiency upgrades. Federally-backed financial tools operating through market distribution mechanisms and other local organizations will leverage private financing at up to 5 to 15 times Federal input. Upfront investment in this program will create a self-sustaining loan program to maximize taxpayer value.
- ✓ **Why it's important...** In commercial buildings alone, 75% of structures currently standing will still be in use in 2030; in other words, we cannot afford to ignore their energy usage. Many energy upgrades are available today and will more than pay for themselves, yet many homeowners and small businesses often do not have the money to invest upfront. This program will help overcome the market omission and encourage more private lending based on future energy savings as the retrofits become more well-known.

Save 1.3
quadrillion
BTUs a year

Rural energy and costs savings (Sec 203)

- ✓ **What it does...** Reduces energy costs for rural homes and businesses by facilitating low-interest loans to rural consumers for energy efficiency retrofits. The program will be administered through the USDA Rural Utilities Service to leverage existing experience with non-profit rural electric cooperatives to create a financially self-sustaining program. Participating consumers repay the loan through energy savings on their utility bills within 10 years or less. Each dollar in Federal outlay is expected to leverage 5 more dollars in private investment.
- ✓ **Why it's important...** Rural homes are often less energy efficient than the national average, and many small farms need to put available capital into new equipment rather than energy savings. Low interest loans can enable tremendous cost savings and reduce the need for rural electric cooperatives to invest in new more expensive power generation.

FEDERAL LEADERSHIP IN BUILDINGS

Taxpayer savings in new buildings (Sec 211)

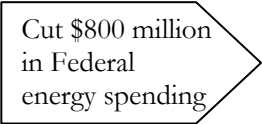
- ✓ **What it does...** Cuts future energy expenses by requiring all new Federal buildings to meet or exceed national model energy efficiency codes, by

allowing designs of delayed projects to be upgraded, and by improving information on likely energy bills at facilities that may be leased by Federal agencies.

- ✓ **Why it's important...** The Federal government has a duty to look past the current budget cycle to ensure that building and tenancy practices reflect our ongoing need to reduce taxpayer burden.

Accelerating energy performance savings contracts (Sec 212)

- ✓ **What it does...** Accelerates implementation of ESPCs (which are already fully authorized) in order to cut Federal spending by reducing electricity needs in Federal buildings and by facilitating private investment in energy upgrades of Federal facilities.
- ✓ **Why it's important...** ESPCs have a proven track-record of saving money, but, uptake by some Federal bureaucracies has been slow. ESPCs can and will be implemented more quickly, bringing quicker savings to taxpayers and encouraging private sector investment. This could save \$800 million in Federal energy spending per year.



Cut \$800 million
in Federal
energy spending

Energy security at military bases (Sec 213)

- ✓ **What it does...** Expresses Congressional intent that the next round of base closure and realignment should take into account the ability of bases to reduce external energy needs, thereby reducing costs of operation and making these national security facilities less vulnerable to power shortfalls such as through cyber threats to our power grid. Since BRAC legislation is not yet in place, this provision indicates future Congressional intent.
- ✓ **Why it's important...** By improving energy security in military installations the Pentagon will save money and be better protected from energy price fluctuations and prolonged outages caused by natural disasters, accidents, or attacks. At the same time, working with surrounding communities and utilizing private sector resources and new technologies has the potential to yield spin-off technologies that benefit the civilian community.

Federal Property Realignment and Savings (Sec 214)

- ✓ **What it does...** Pays for programs in the Practical Energy Plan by reducing holdings of unneeded Federally-owned properties. Agencies have identified 14,000 properties that they do not need with thousands more underutilized, and the Practical Plan will help remove bureaucratic and legal hurdles that keep them on the books. Sale, consolidation, transfer, co-location, or reconfiguration of these excess properties will reduce Federal energy demand, reduce costs of upkeep, and free these properties for local economic development.
- ✓ **Why it's important...** As we seek to reduce Federal energy consumption and cut fiscal liabilities, it only makes sense to do away with properties that are no longer needed. This has the dual benefit of generating up to \$15 billion in revenue. Much of the Practical Energy Plan will cut government spending (such as through ESPCs), some payback over time (EOR), and others are authorizations rather than appropriations so do not have a fiscal

‘score’ (loan programs). However, asset sales under this provision will allow the latter programs to be funded right away, bringing savings to Americans faster.

IMPROVING PRODUCTIVITY AND COMPETITIVENESS

State partnership loans for industrial facilities (Sec 221)

Save 0.8
quadrillion
BTUs a year

- ✓ **What it does...** Accelerates the deployment of energy-saving equipment and processes to help reduce industrial energy costs and boost the productivity and competitiveness of U.S. manufacturers. States and local economic development coalitions will direct and administer this self-sustaining loan program in which public dollars leverage private investment. Federal dollars will be matched at least dollar for dollar. Low cost financing will help meet needs for up-front investments that will pay back over time and help American industrial competitiveness.
- ✓ **Why it’s important...** Approximately 30% of U.S. energy consumption is used by industry, making this sector vulnerable to electric rate increases likely to come as the aging electricity sector is upgraded. Many technologies and processes already exist that could save money, but affordable capital is not available for some companies and for others the return on these investments is not quick enough to meet profit goals measured in quarters rather than in years. Federal encouragement of private investment in energy efficiency investment today will help protect and grow U.S. manufacturing jobs by improving productivity and competitiveness.

Study on reform of ‘new source review’ to encourage energy efficiency (Sec 222)

- ✓ **What it does...** Requires examination of how existing regulations impinge on energy efficiency upgrades in industry and the power sector. In particular, current law and EPA implementation of ‘new source review’ will be reviewed by GAO.
- ✓ **Why it’s important...** We should get the most power as possible out of the natural resources we use, yet many plants operate at just a third of their potential. Efficiency is the cheapest and most abundant energy source available today, fear that investing in energy efficiency upgrades will bring onerous new regulation by the EPA puts these gains on the sidelines. As we develop statutory and regulatory reform solutions, a GAO review will help provide important information on the potential and challenges in this area.

Cost-effective efficiency gains in appliances and equipment (Sec 231)

Save 0.9
quadrillion
BTUs a year

- ✓ **What it does...** Improves existing authorities to provide clearer guidance for implementation of energy efficiency standards for appliances and commercial equipment, making the processes of review and reporting to Congress more systematic and transparent. These provisions, dating back to the first rules signed into law by President Ronald Reagan in 1987, are best adopted alongside S.398, industry and consumer supported legislation that has already been approved by the Senate Energy Committee and would reduce Federal spending by skipping cumbersome rule-making.

- ✓ **Why it's important...** Clear energy efficiency standards encourage investment and innovation in products that can do the same work (or better) for less energy and less money on power bills. They benefit products made in America and are widely supported by manufacturers and workers. According to a study by ACEEE, standards already on the books have saved American consumers \$300 billion and have shaved electric needs in this country, thus reducing electric rate increases that would result from increased demand. The Practical Plan will clarify regulatory process to be more consistent and some rule-making processes will be avoided.

Federal procurement of energy efficient products (Sec 232)

- ✓ **What it does...** Accelerates government leadership and responsibility to reduce taxpayer burden by requiring Federal agencies to utilize energy efficient products and services. It also encourages partnership with industry to prove new highly efficient products. Improved computing technology management within Federal agencies also will be required in order to cut costs.
- ✓ **Why it's important...** Federal purchases should represent lifecycle fiscal savings, rather than concern about single budget cycles. Opportunities to save are proven: the VA, for example, expects to save more than \$32 million over 5 years by using updated software and management practices for its computing needs. At the same time, the large procurement footprint of Federal agencies can encourage innovation and cost reductions in technologies that will spread benefits to consumers.

Goal 3: Review and reform Federal energy programs

Measuring, improving, and keeping fiscal checks on programs (Sec 301)

- ✓ **What it does....** Requires regular, transparent reporting on progress and costs of energy programs contained in the Practical Energy Plan and other existing programs.
- ✓ **Why it's important...** Federal programs should maximize bang for the buck, should be subject to constant scrutiny and should be revised or eliminated if they are not working. For the first time, authorizing legislation will comprehensively require regular review – including review of fiscal impacts.

