

Energy efficiency—part of the answer to MENA’s energy challenges

Middle East and North Africa Region working lunch

Why energy efficiency?

MENA countries are highly concerned with the economics of energy. For many governments the key issue is the weight of energy subsidies on fiscal balances. For others it is vulnerability to hydrocarbon price swings and the risk of losing competitiveness. And for still others it is financing energy investments and satisfying the energy needs of fast-growing economies.

As argued in a forthcoming World Bank report, greater energy efficiency can help MENA countries meet these policy challenges at low cost. It can improve fiscal balances, stimulate growth and competitiveness, strengthen energy security, and reduce the energy burden on the poor. It can also raise the quality of life—by improving energy products and services, by reducing pollution, and by reallocating savings from energy to social services and other welfare enhancements. And in the long term, it can preserve energy resources for future generations and mitigate climate change.

Investments in energy efficiency have very short payback periods. Achieving these benefits is a matter of getting the right incentives and institutions, as several countries around the world have shown.

Synopsis of the Forthcoming Report on Energy Efficiency in MENA

Confronting MENA’s energy-intensive growth path. China, India, and other world regions are now using less energy per dollar of GDP than in 1990. MENA is using more. However, some MENA countries are following a much more energy-intensive growth path than others. What does this mean for macroeconomic performance, competitiveness, and the environment in MENA countries? How can MENA countries improve their energy efficiency and move onto a less energy-intensive path?

Energy efficiency in MENA. Reducing transmission and distribution losses to 10 percent from their current high levels would yield an additional 7,340 megawatts of capacity equivalent, or a savings of US\$5.5 billion that could be used for new investments. In addition, lowering regional energy intensity could yield economic gains equivalent to 0.5–1 percent of GDP.

Energy subsidies and the fiscal balance. Energy subsidies and energy efficiency have a two-way relationship: energy subsidies encourage the inefficient use of energy, and energy efficiency reduces the cost of energy subsidies—for the simple reason that less energy is used. Average total energy subsidies equalled at least 7.1 percent of the region’s GDP in 2006. MENA countries lag considerably behind other regions in passing recent energy price rises through to consumers. Although the subsidies have a low average impact on industrial costs, some fairly inefficient industries have become dependent on energy subsidies for their survival.

Pollution and health. Urban air pollution in eight MENA countries has been estimated to cause 40,440 premature deaths each year. If all MENA countries could reduce oil consumption by 10 percent per capita through energy efficiency programs, they could save about 2,400 lives every year.

Energy prices. MENA countries have ample room to adjust energy prices so that consumers have more incentive to use energy efficiently. For electricity, MENA residential rates average around \$0.07 per kilowatt hour, about a third of the corresponding rate in benchmark countries with full

cost recovery. Energy efficiency can also be encouraged through flexibility, transparency, and differentiation in the tariff structure. Time of use tariffs are particularly powerful for regulating industrial electricity use, but only 7 of 18 MENA countries apply them. For liquid fuels, median prices for kerosene and diesel in MENA countries in 2006 were about half the prices in comparator countries with full cost recovery. Gasoline prices in MENA countries were closer to economic prices.

Social protection: easing reforms in energy prices and subsidies. Governments around the world have used social protection schemes to manage the political and social costs of energy price reform. Integrating energy efficiency into social protection programs can help. But designing an effective social protection program requires analytical preparation. Key decisions include identifying the target groups, deciding on the form of compensation, and choosing a transfer mechanism.

Stronger institutional and financing frameworks. An institutional framework for energy efficiency has two parts: an enabling part, creating the conditions to begin an energy efficiency campaign, and implementation part. Each country must develop institutions and financing that matches its policy objectives, resource endowments, institutional capacity, development level, and sociopolitical context.

Managing the transition to greater energy efficiency. Many countries around the world have boosted their energy efficiency, with five good practices:

- Making a long-term commitment and ensure institutional development.
- Choosing the right entry points, with the right pace of policy change.
- Mobilizing financial resources.
- Measuring results.
- Communicating—the most important practice of all.

Sector-specific technical improvements. Energy efficiency in manufacturing, construction, transport, and irrigation can yield large gains. To improve energy efficiency, countries must mobilize the main consuming sectors. The returns of energy efficiency investments, both in the short term and in the long term, are very high. Today's energy efficiency solutions will determine tomorrow's energy efficiency profiles.

Where countries around the world have made significant gains in energy efficiency, they have done so by aligning economic incentives, institutions, financing frameworks, and technical options.