managing residential gas consumption. There is no guarantee that future winters will play out any better than the last—unless infrastructure and policy

## **Key requirements for power security**

are overhauled quickly."

 Developing transmission infrastructure and reinforcing pipelines: Planning and completing projects like the Ninth National Gas Pipeline and the expansion of pumping and pressure-boosting equipment are vital.

• Revamping the power plant fuel mix: Strong incentives should be given for dual-fuel capability in new plants, old units should be upgraded, and renewables should be pursued not just for environmental reasons but as a matter of national security.

• Promoting public awareness and reforming household gas tariffs: Wasteful consumption habits must be reined in through precise tiered pricing and public education so that the grid is not put under extra strain during peak periods.

 Upgrading technology and reducing losses: Boosting plant efficiency and adopting cutting-edge technologies is needed, provided that technology transfer and international cooperation are brought into play.

• Secure storage of gas and liquid fuels: Establishing strategic reserves for gas and liquid fuels during critical seasons is essential for supply chain stability.

Natural gas is a colossal nation-

al asset and a unique opportunity for Iran's economy. Yet, regrettably, with a one-track policy, it has morphed into a threat to energy security and even national strength. Deep reform of subsidy policies, a redesign of the fuel mix, and expansion of transmission infrastructure are now not just lofty recommendations, but the very conditions for the

survival of Iran's electricity stability. Sticking to the current approach — ignoring fuel diversity and doubling down on subsidy-driven speculation — will trap the country in a vicious cycle of winter blackouts, public discontent, and decaying infrastructure.

The article first appeared in Persian on Mehr news agency.

# Solar power to supply half of industrial parks' electricity

#### PERSPECTIVE

The energy shortage that has built up over recent years, largely due to neglect of infrastructure investment, has turned into a crisis for production, effectively tying the hands of Iranian manufacturers. This shortage comes to a head during the warmer months, to the extent that some large, medium, and small industries are brought to a standstill.

According to economic actors and producers, power outages used to kick off in late May, but this year, they got underway as early as early April. The situation has worsened to such an extent that, starting May 14, major industries across the country were hit with a 15-day blackout and factory shutdowns. Restrictions on electricity, ranging from 50% to 90% in major industries, went hand in hand with factory closures and workforce layoffs, sparking protests from economic stakeholders.

The situation for medium and small industries is no better. In industrial parks and zones, power cuts are rolled out two to three days a week on average, throwing a wrench into production.

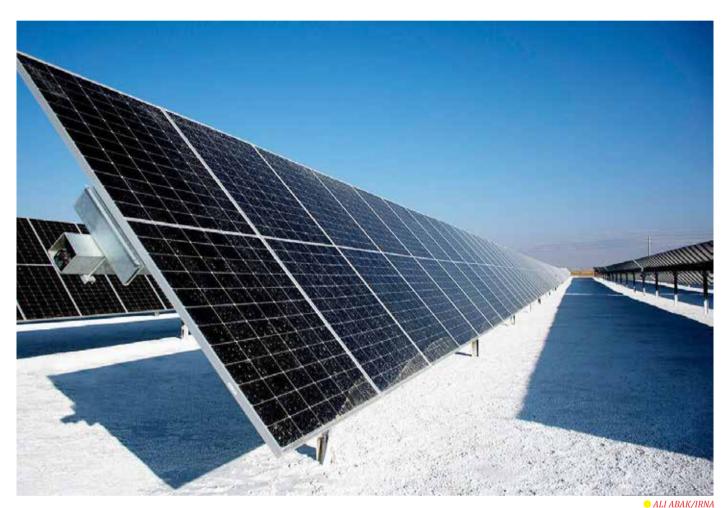
To get around the electricity shortfall, industrial parks and large industries consuming over one megawatt are, under Article 16 of the Knowledge-Based Production Leap Law, required to provide at least 1% of their annual electricity needs from renewable sources. This figure must climb to at least 5% by the end of the fifth year.

According to a directive from the Ministry of Energy issued in July 2023, industries can produce renewable electricity, feed it into the grid, and receive the same amount back. This requires tripartite cooperation between industrial units, SATBA (Renewable Energy and Energy Efficiency Organization), and Tavanir company.

Although the law places the responsibility for providing water, electricity, gas, and telecom infrastructure for industrial parks on the respective ministries, and the industry sector is obliged to invest in production and its enhancement, the ongoing energy shortage has forced the sector to turn to solar power. Consequently, the construction of solar power plants in industrial parks and major industries has gotten off the ground, and some are already operational.

### Specialized solar farms

There are about 870 industrial parks and zones nationwide, employing roughly 1.1 million people in 53,000 production units. While these parks only account for 3,000 megawatts — about 4.5% to 5% of the country's total electricity consump-



tion — industries bear the brunt of power cuts.

The Iran Small Industries and Industrial Parks Organization, as the sector's steward, has put energy provision front and center. The organization is pushing ahead with the creation of specialized solar energy parks, solar zones within industrial parks, and rooftop solar installations, as well as supporting the devel-

opment of substations, transmission lines, and distributed generation (CHP and DG) in industrial areas. These measures go a long way toward addressing the electricity shortage.

Moreover, a memorandum of understanding has been inked between the Small Industries and Industrial Parks Organization and MAPNA Group to pave the way for technical and

financial support for reliable, high-quality electricity supply in industrial parks, zones, and special economic areas.

The latest status of solar power plant development was discussed with Reza Ansari, CEO of the Iranian Small Industries and Industrial Parks Organization, and Heshmatollah Asgari, deputy for Economic Coordination at Tehran's Governor's Office.

## Half of industrial parks' power from solar

Reza Ansari, deputy minister of Industry, Mine, and Trade, maintained that the energy shortage is one of the main challenges facing industrial parks in summer. "To tackle this, policies have been rolled out to encourage industries to invest in solar power plants so they can cover their own electricity needs."

Ansari added that industries that set up solar plants are eligible for a 30% to 80% discount on land in industrial parks for investment purposes.

The CEO of the Small Industries and Industrial Parks Organization stated that the plan is for 25% of industrial parks' electricity needs to be met through private investment and partnerships this year, and another 25% next year.

He noted that suitable land in industrial parks for solar power plants has been identified, with these sites being well-placed near substations and connection points, making them ripe for investment.

Ansari emphasized that investment and financing to iron out energy shortages is on the agenda to support production. "Accordingly, 250 megawatts' worth of contracts have been signed with investors in industrial parks, and this trend is set to continue," he said.

He also pointed out that the organization supports economic units in industrial parks to boost production and competitiveness in exports and foreign currency earnings.

## Injecting 1,000 MW of power into industry

Heshmatollah Asgari, deputy for Economic Coordination at Tehran Governor's Office, also noted that the biggest grievance among production units is the electricity shortfall. "Initially, unplanned outages plagued industrial parks, but with the cooperation of electricity departments and the parks themselves, outages are now scheduled and predictable," he added.

He stressed that every effort is being made to ensure fairness in electricity distribution, urging commercial, agricultural, residential, and high-consumption sectors to "cut back so that the industry's load can be eased".

Asgari underlined the need for

long-term investment in energy infrastructure, noting that significant investment has already gone into solar energy. "This year, over 1,000 megawatts of industrial electricity is up for allocation."

He added that construction has kicked off for 300 megawatts of power, which is expected to help ease the industry's needs.

While the industry's main job is to ramp up production, it is hoped that, with supportive government policies and private sector cooperation, this year — dubbed the year of "Investment for Production" — will see a boost in electricity infrastructure, allowing industries large and small to weather the storm of energy shortage and focus on domestic needs and exports.



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