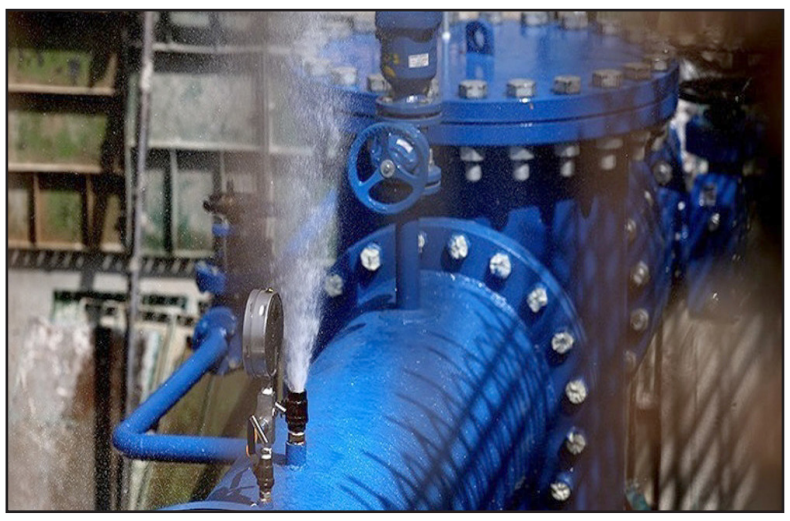
Ministry Opens $70mn Water Diversion Project in Tehran



TEHRAN - **The Iranian Energy Ministry has opened a $70 million water diversion project that increases water supply to the capital, Tehran.**

Energy Minister Abbas Aliabadi said on Sunday that water from the Taleqan Dam, located more than 140 kilometers to the northwest of Tehran, had reached treatment facilities in Karaj, a metropolis near the capital, which is responsible for a bulk of the water supplied to the city.

Aliabadi said that the project has added 2,200 liters per second to the water supply in Tehran, a city with a total demand of 40,000 liters per second.

He said that more than 54 kilometers of the 62-kilometer pipeline project is complete, adding that pipe-laying will continue until water reaches treatment facilities near Tehran to add another 2,500 liters per second to the city's supplies.

The minister said the project would provide water to nearly three million people, adding that total government spending for the project is around 70 trillion rials ($70 million).

Construction experts have described the water transfer project from Taleqan dam as one of the most complicated schemes ever launched and completed by the Iranian Energy Ministry.

Some 43,500 metric tons of 2,000-millimeter pipes have been supplied to the project over the past few months.

Tehran has been facing an increasing demand for water this summer amid record temperatures that reached over 40 degrees Celsius in many parts of the city in August.

The government said in July that the amount of water in reservoirs around Tehran had fallen by 50% compared to last summer, adding that the reduction was the result of a 41% drop in precipitation during wet months.

New Platform Jacket to Spur Output From South Pars Phase 11

BUSHEHR – **The installation of a key platform jacket marks a major step in Iran's efforts to increase gas recovery from the offshore South Pars gas field, the world's largest, which it shares with Qatar.**

The project executor for the development of South Pars Phase 11 said the load out of the SPD11A jacket on Sunday is a milestone for the phase. Once installed at location 11A, the jacket will enable the drilling of new wells and increase output from the shared field.

Muhammadreza Rajaei, speaking at a ceremony at the Sadra Yard, said Phase 11's development includes two sections, 11A and 11B, with total gas reserves estimated at 21 trillion cubic feet. After foreign companies withdrew from the project, its development was assigned to Iranian contractors, with serious work commencing in 2019.

Production from block 11B began in 2023 with four wells, Rajaei said. The number of wells in that block is currently increasing, raising daily extraction to approximately 706 million cubic feet per day.

The jacket loaded Sunday is a four-legged structure. Construction began at the Sadra Yard in June 2023 and was completed in less than 15 months. The jacket is 76 meters (249 feet) high and designed on five levels. The structure itself weighs 2,250 metric tons; with accessories, including fenders, a temporary drilling deck, and installation parts, it weighs approximately 4,100 tons. After being moved to position 11A, it will be fixed to the seafloor with piles and prepared for the drilling rig.

Rajaei said the SPD11A jacket is designed to drill 15 wells. The deck measures 20 by 24 meters at the placement location and 33 by 38 meters at the seabed. It includes two main risers, 32 inches and 4.5 inches in diameter, for fluid transfer, and a 36-inch caisson for structural stability and load transfer to the seabed.

He emphasized the structure's size, noting that 13,200 meters of welding was required for its construction – equivalent to 35 full laps around a 370-meter soccer pitch.

Rajaei stated that all stages of the jacket's design and construction were completed entirely by domestic contractors, relying on the expertise of Iranian engineers and workers. He called it a clear symbol of national capability in executing major offshore oil and gas industry projects.

He said the installation of this jacket and the start of drilling operations at location 11A will increase Phase 11's production capacity, allowing Iran to recover a greater share of the South Pars joint gas reserves.

Mazandaran Non-Oil Exports Top 24%

TEHRAN – **Head of Industry, Mine and Trade Organization of Mazandaran province Soleiman Alijannejad has said this province exported $368 million worth of non-oil goods in 2024, showing a 24% growth compared to a year earlier.**

Alijannejad stated that the province exported more than 1.580 million tons of non-oil goods, valued at $368 million, overseas in the previous year (2024), registering a 24 percent and 6 percent growth in value and weight, respectively compared to the year before.

Dairy products, fish, kiwi fruit, and mineral metals were of the main goods exported from this northern province overseas in this period, he said, adding that Iraq, Russia, Turkmenistan, Kazakhstan, Uzbekistan and Republic of Azerbaijan were Iran's main export target markets.

Niroo Research Institute Utilizes Nanotechnology to Increase Efficiency of Thermal Power Plants

TEHRAN - **A research by the Iranian scientists at Niroo Research Institute shows that the use of nanotechnology in thermal power plants can increase the efficiency of electricity generation by 30 percent.**

Also, the study showed that the use of artificial intelligence in these power plants reduces fuel consumption and the amount of pollutants by 40 percent.

"The use of nanostructured insulators like silica aerogels and advanced nanocomposites significantly reduces heat losses in power plants. These insulators, which are lightweight and resistant to high temperatures of up to 1,000 degrees Celsius, reduce maintenance and repair costs and increase the durability of equipment," said Majid Mirzayee, the deputy director of the Specialized Center for Innovation and Development of Nanotechnology at Niroo Research Institute.

He underlined the role of nanocatalysts and membrane nanofilters in refining diesel fuel, and said, "Nanocatalysts and membrane nanofilters reduce the emission of harmful gases and suspended particles by removing sulfur compounds and heavy metals. Fuel nanoemulsions also increase thermal efficiency by improving the combustion process and reduce the amount of soot and pollutants by up to 40 percent." Mirzayee also pointed to the use of resistant nanocoatings on turbine blades, compressors and boilers, saying, "These nanocoatings increase resistance to corrosion, wear and heat and prevent premature destruction. Nanofluids also help increase efficiency and reduce resource consumption by improving heat transfer in exchangers and nanofilters by purifying inlet air and cooling water."

Relevant reports in August also said that nanobubble technology is used as a new solution to significantly reduce energy consumption in treatment plants, since this technology, by reducing electricity consumption by 50% in Iran, not only decreases costs, but also helps the country's electricity grid to remain stable.

Nanobubble technology, which has been developed in the world for less than 10 years, has now been indigenized in Iran by domestic experts and is used in various sectors of the country's water and wastewater industry.

By producing ultra-fine bubbles on a nanoscale, this technology optimizes the water and wastewater treatment process and reduces electricity consumption by up to 50%. Reducing energy consumption, reducing water consumption, reducing the use of chemicals, and increasing efficiency are among its most important benefits.

According to the director of the Nanobubble Technology Development Program at the Special Headquarters for Nanotechnology Development, this technology is now being implemented in urban, industrial, and even drinking water treatment plants and plays an important role in energy efficiency in the country's water sector.

This important achievement has also been welcomed by executive agencies and large industries, and successful examples of its implementation have been reported in various cities.

Russia Welcomes Iran's Bid for Full EAEU Membership

TEHRAN – **Kremlin spokesperson Dmitry Peskov has welcomed Iran's interest in becoming a full member of the Eurasian Economic Union (EAEU).**

In response to a question from an IRNA correspondent in Moscow, Peskov positively assessed Iran's position, adding, "The Russian side welcomes such a position."

The comments followed remarks by Iran's First Vice President, Mohammadreza Aref, who had previously said that Tehran is seeking permanent membership in the union.

He emphasized that developing relations with neighboring countries, particularly those in Eurasia, is a priority for the Iranian administration.

The Eurasian Economic Union is an intergovernmental economic bloc that includes Russia, Belarus, Kazakhstan, Kyrgyzstan, and Armenia. Iran currently holds observer status in the union, alongside Uzbekistan, Moldova, and Cuba.

Iran Unveils Home-Made 150-mt Dump Truck Despite Sanctions

TEHRAN - Iran has unveiled a home-made 150 metric ton (mt) dump truck to serve demands in the country's massive mining sector despite sanctions cutting off its access to foreign material and technology.

A video published on the IRIB News on Sunday showed the Iranian-made dump truck moving toward a large parking area while experts and manufacturers discussed its technical capabilities.

The machine, named ADAK 150AC, has been designed and manufactured by Gohar San'at Adak Gostar, a company based in Kerman, a province in the southeast of Iran, which is home to some of the country's largest iron and copper mines.

Various Iranian government institutions, including the Iranian Presidency's department for science and technology, have contributed to the project.

The Nour News agency said that Iranian engineers had spent two years designing the giant machine, which enjoys a full electric drive.

It said Iran has now become one of the few countries with the technology and expertise to manufacture such dump trucks.

With an estimated $770 billion worth of reserves, Iran has seen its mining sector as a major source of development since the United States imposed sanctions on the country's oil exports in 2018.

The expansion of Iran's mining sector has helped create hundreds of thousands of jobs while enabling the country to earn tens of billions in hard currency revenues.

The National Iranian Copper Industry Company (NICICO) said last year it had signed a contract with the MAPNA Group, a large government-controlled energy and construction holding, to manufacture a 136-mt dump truck.

That comes on top of numerous finished and ongoing projects for local manufacturing of heavy mining machinery, including excavators, crushers, and bulldozers.