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## **VIETNAM'S PV GAS SELECTS HONEYWELL MODULAR GAS PROCESSING PLANT AND AUTOMATION TO PRODUCE LIQUEFIED PETROLEUM GAS (LPG)**

*Factory-built modular plant will reduce imports of LPG*

DES PLAINES, Ill., Jan 13, 2016 – Honeywell (**NYSE: HON**) announced today that it will supply a 250 million standard cubic feet per day (mmscfd) modular gas processing plant and advanced automation systems to PetroVietnam subsidiary, PV Gas.

PV Gas, Vietnam's primary gas provider, will use Honeywell UOP's modular gas processing plant to separate liquefied petroleum gas (LPG) from natural gas at its Ca Mau facility near the southern tip of Vietnam. Honeywell Process Solutions (HPS) will serve as the integrated main automation contractor (I-MAC) and supply the integrated controls and safety systems for the facility and terminal.

PV Gas supplies natural gas to generate nearly 40 percent of the nation's electricity, and local production accounts for more than 55 percent of Vietnam's domestic demand for LPG.

The Honeywell UOP modular plant will separate LPG, a compressed mix of propane and butane, from natural gas. LPG is used as a fuel for heating and transportation, and to manufacture plastics and synthetic rubber. Globally, LPG consumption is growing rapidly due to its versatility, low carbon emissions and energy efficiency. Within Asia, LPG demand is expected to grow at about 8.5 percent per year through 2020, according to IHS.

"As part of the largest oil and gas provider in Vietnam, PV Gas is making smart investments in infrastructure and innovative technology to meet the country's goal of increasing the utilization and profitability of natural gas, and this solution from Honeywell will help us achieve that," said Mr. Huynh Quang Hai, general manager of Ca Mau Gas Processing Plant's management board. "Honeywell's modular gas plant and advanced automation controls offer a high recovery liquid efficiency, increasing the production of valuable products from natural gas."

# Honeywell

The factory-built modular gas plant will be installed on site and is expected to begin production in 2017. The consortium of Posco Engineering Co., Ltd and PetroVietnam Technical Services Co. is the Engineering, Procurement and Construction (EPC) contractor for the project.

“Honeywell UOP has worked with PetroVietnam for more than 20 years in refining and petrochemicals, and this project will help Vietnam meet its growing energy demands,” said John Gugel, vice president and general manager of Honeywell UOP’s Gas Processing and Hydrogen business. “Our modular gas processing plants are a proven solution for high-quality, fast and efficient gas processing anywhere in the world, helping companies generate revenue sooner and more cost-effectively than with stick-built plants.”

As the I-MAC, Honeywell will provide the front-end engineering and design (FEED) to design, deliver and install the automation, instrumentation, controls, safety and security for the gas processing units as well as for the terminal operations. This unified approach will be critical to help the project start up quickly and meet operational and business readiness goals.

“Honeywell is uniquely qualified to supply both the process and controls for major projects like this,” said Pieter Krynauw, vice president for HPS’s Projects and Automation Solutions business. “UOP provides the processes that make the facility work, and HPS automation controls will keep it running efficiently and safely. PV Gas will see lifecycle benefits from this approach, beginning with fast installation and startup and sustained through training and site services – all from a single supplier.”

Honeywell UOP’s modular process equipment efficiently delivers technology to treat and process natural gas, and can be shipped easily to remote locations. Plant modules are assembled quickly, significantly reducing construction time and expense, and enhancing reliability after startup. For multiple units, the standardized design simplifies training, operations and maintenance due to common parts, skid and installation layouts, and spares. [Watch a video](#) on Honeywell UOP modular gas processing solutions.

Honeywell UOP also offers a full suite of related technologies to remove contaminants from raw natural gas streams, to purify hydrogen used in refineries, and equipment including Callidus flares. The company has supplied technology to more than 3,600 individual units in a broad range of applications throughout the world. It also supplies modular equipment to the global oil [refining and petrochemical](#) industries.

Honeywell’s automation technologies that will be deployed by PV Gas include:

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- [Experion® Process Knowledge System \(PKS\)](#), the heart of the Integrated Control and Safety Systems (ICSS), offering more than traditional distributed control systems (DCS) by unifying people with process, business requirements and asset management by enabling integration of all process control and safety systems and automation software under one unified architecture.
- [LEAP™](#) – Honeywell’s new lean project execution services combines proprietary Universal Channel Technology, virtualization and cloud engineering to give users greater scheduling flexibility while reducing risk and total automation costs by up to 30 percent.
- [Smartline® field transmitters](#) – The industry’s first modular and most reliable transmitters set a standard for ease of use and total performance in harsh and noisy process environments.
- [Safety Manager](#) integrates process safety data, applications, system diagnostics and critical control strategies, and executes defined safety applications in a fully redundant architecture.
- [SmartRadar FlexLine](#) is one of Honeywell’s high-end radar tank gauges for the assessment of tank contents, tank inventory control and tank farm management.

[PetroVietnam](#) is a state-owned company with many subsidiaries that operate in the oil and gas industries, from exploration and production, to storage, processing, transportation and distribution. The company is responsible for the country’s oil and gas resources, acting as the primary operator and regulator.

Honeywell Performance Materials and Technologies (PMT) is a global leader in developing advanced materials, process technologies and automation solutions. PMT’s Advanced Materials businesses manufacture a wide variety of high-performance products, including environmentally friendlier refrigerants and materials used to manufacture end products such as bullet-resistant armor, nylon, computer chips and pharmaceutical packaging. Process technologies developed by PMT’s UOP business ([www.uop.com](http://www.uop.com)) form the foundation for most of the world’s oil and gas industries, efficiently producing gasoline, diesel, jet fuel, natural gas, petrochemicals and renewable fuels. PMT’s Process Solutions business ([www.honeywellprocess.com](http://www.honeywellprocess.com)) is a pioneer in automation control, instrumentation and services for the oil and gas, refining, pulp and paper, industrial power generation, chemicals and petrochemicals, biofuels, life sciences, and metals, minerals and mining industries.

Honeywell ([www.honeywell.com](http://www.honeywell.com)) is a Fortune 100 diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control



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This release contains certain statements that may be deemed “forward-looking statements” within the meaning of Section 21E of the Securities Exchange Act of 1934. All statements, other than statements of historical fact, that address activities, events or developments that we or our management intends, expects, projects, believes or anticipates will or may occur in the future are forward-looking statements. Such statements are based upon certain assumptions and assessments made by our management in light of their experience and their perception of historical trends, current economic and industry conditions, expected future developments and other factors they believe to be appropriate. The forward-looking statements included in this release are also subject to a number of material risks and uncertainties, including but not limited to economic, competitive, governmental, and technological factors affecting our operations, markets, products, services and prices. Such forward-looking statements are not guarantees of future performance, and actual results, developments and business decisions may differ from those envisaged by such forward-looking statements. We identify the principal risks and uncertainties that affect our performance in our Form 10-K and other filings with the Securities and Exchange Commission.

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