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## **Shaw and Exelon Join NET Power to Develop Next-Generation Power Technology**

**BATON ROUGE, La., June 6, 2012** – The Shaw Group Inc. (NYSE: SHAW) today announced it is teaming up with NET Power LLC and Exelon to develop a new technology for gas-fired power generation that could result in major benefits for electricity producers and consumers, energy security and the environment.

The new technology, called NET Power, is based on a high-pressure, supercritical carbon dioxide oxyfuel power cycle, which produces cost-effective electric power with little to no air emissions. Unlike other power generation technologies that release emissions to the atmosphere or employ expensive, add-on carbon capture systems, the primary byproduct of NET Power is pipeline quality, high-pressure carbon dioxide. The carbon dioxide can be used for enhanced oil recovery, which can potentially greatly increase reliable reserves of oil in the United States and around the world, while sequestering carbon dioxide below ground. The revenues generated from carbon dioxide sales, added to the revenues from the sale of electricity, can significantly improve the value of the NET Power plant for its owners.

Shaw will acquire a substantial ownership position in NET Power LLC, the developer of the technology, and will have exclusive worldwide rights to engineer, procure and construct NET Power plants. Exelon, the largest competitive power generator in the United States, will provide and obtain permitting for a small-scale testing site, test and commission the facility, market its output, supply fuel and provide other operations and maintenance support. Exelon will have options for the first full-scale commercial plants when development is complete. The team is working with a leading global manufacturer to design, develop and manufacture an innovative turbine for this new technology.

The initial application of NET Power will be based on a natural gas fueled turbine. Future variants of NET Power are expected to be capable of using coal as the fuel source with existing, commercially available gasifiers. The coal application is expected to yield similarly excellent environmental and cost benefits.

"This next-generation technology, which was invented and is being developed here in the United States, will be of great interest to both electricity-generating utilities, as well as oil recovery and exploration companies," said J.M. Bernhard Jr., Shaw's chairman, president and chief executive officer. "In addition to being an emissions-free option for power generation investments created by large natural gas reserves in the United States, NET Power technology could aid in the recovery of 500 billion to 1

trillion barrels of oil worldwide. The innovative process effectively addresses carbon capture, making this an ideal solution for clean, responsible and cost-effective energy production.”

As milestones are completed for the four phases of the project, Shaw will invest up to \$50.4 million in cash and in-kind services and will acquire up to 50 percent of NET Power LLC. Phases 1 and 2 involving front end engineering and combustor rig testing are expected to be completed in 2012. Phase 3, expected to be completed in mid-2014, involves the construction and commissioning of a 25MW small-scale natural gas plant that will capture all emissions and will generate revenue from the sale of electricity and carbon dioxide for enhanced oil recovery. Development of the first full-scale commercial natural gas plant is expected to begin in late 2014 or early 2015.

“We are extremely pleased to partner with Shaw to develop this important technology,” said Bill Brown, NET Power’s chief executive officer. “As a leading global engineering and construction services firm, Shaw will help us deliver the promise of NET Power – substantially cheaper, truly clean electricity – to all corners of the world.”

The Shaw Group Inc. (NYSE:SHAW) is a leading global provider of engineering, construction, technology, fabrication, remediation and support services for clients in the energy, chemicals, environmental, infrastructure and emergency response industries. A Fortune 500 company with fiscal year 2011 annual revenues of \$5.9 billion, Shaw has approximately 27,000 employees around the world and is a power sector industry leader according to Engineering News-Record’s list of Top 500 Design Firms. For more information, please visit Shaw’s website at [www.shawgrp.com](http://www.shawgrp.com).

NET Power LLC is a Durham, N.C.-based company owned by 8 Rivers Capital LLC, the inventor and early developer of the NET Power technology. NET Power LLC is commercializing its novel thermodynamic cycle, a platform technology with broad applications across the energy industry. Part of NET Power LLC is beneficially owned by Duke University. For more information, please visit NET Power’s website at [www.NETPowerllc.com](http://www.NETPowerllc.com).

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This press release contains forward-looking statements and information about our current and future prospects and our operations and financial results, which are based on currently available information. The forward-looking statements include assumptions about our operations, such as cost controls and market conditions, that may not be realized. Actual future results and financial performance could vary significantly from those anticipated in such statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, the occurrence of certain events or otherwise.

Among the factors that could cause future events or transactions to differ from those we expect are those risks discussed under Item 1A “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended August 31, 2011, our Quarterly Reports on Form 10-Q for the quarters ended November 30, 2011, and February 29, 2012, and other reports filed with the Securities and Exchange Commission (SEC). Please read our “Risk Factors” and other cautionary statements contained in these filings.

As a result of these risks and others, actual results could vary significantly from those anticipated in this press release, and our financial condition and results of operations could be materially adversely affected.



# News Release

FOR IMMEDIATE RELEASE

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## **Toshiba Joins NET Power, Shaw, and Exelon to Develop New Power Generation Technology**

**Durham, N.C., June 15, 2012** – NET Power LLC today announced that Toshiba Corporation (TOKYO: 6502), a world-class technology manufacturer, has joined The Shaw Group (NYSE: SHAW), a leading global engineering services firm, and Exelon Corporation (NYSE: EXC), the leading U.S. competitive energy provider, to develop NET Power’s novel, clean, gas-fired power generation technology. Last week, Shaw announced that it was making a substantial investment in NET Power LLC.

NET Power’s system generates lower cost electricity while producing little-to-no air emissions. The technology utilizes a new, oxyfuel, high pressure, supercritical carbon dioxide cycle—named the Allam Cycle after lead inventor Rodney Allam. Unlike traditional carbon capture technologies, the NET Power cycle inherently produces pipeline-ready CO<sub>2</sub> for sequestration or use in enhanced oil recovery (EOR) without reducing plant efficiency or increasing costs. EOR is a decades-old technology that uses carbon dioxide to extract stranded oil from mature oil fields while sequestering carbon dioxide below ground. The US Department of Energy estimates that nearly 84 billion barrels of oil are recoverable using EOR in the US and 500 billion to 1 trillion barrels are recoverable worldwide; however, current sources of CO<sub>2</sub> for EOR are only meeting a small fraction of that need, as most industrial CO<sub>2</sub> capture technologies cannot produce cost-effective, EOR-ready CO<sub>2</sub>. NET Power’s technology will have both the capacity and economics to enable the EOR industry to unlock this vast resource while simultaneously sequestering large quantities of carbon dioxide below ground.

“NET Power’s technology is driven first and foremost by its low-cost electricity production, which does not require regulations or additional revenue streams to be highly competitive in the marketplace,” said Bill Brown, chief executive officer of NET Power. “By affordably capturing CO<sub>2</sub>, though, NET Power can access the large EOR market, creating substantial added value for NET Power plant owners, providing strong market incentives for CO<sub>2</sub> capture and storage, and enabling large reserves of stranded, domestic oil to be accessed.”

Under the current program, Shaw, Toshiba, Exelon and NET Power will develop a 25MW NET Power natural gas plant that is expected to begin operating in mid-2014. Construction of the first 250MW plant is expected to begin in late 2014 or early 2015. NET Power will be responsible for overall project development and systems engineering; Toshiba will design, test and manufacture a combustor and turbine for the NET Power system; Shaw will provide engineering, procurement, and construction services; and Exelon will support the development and operations of the 25MW plant by selecting the site, obtaining permits and commissioning the facility. Shaw will also provide up to \$50.4 million in cash and in-kind services to the effort, subject to certain milestones being

met, acquiring up to 50% of NET Power LLC as those milestones are completed during the four phases of the project. Jefferies & Company, Inc. served as sole financial advisor to NET Power LLC on the transaction.

“Toshiba’s expertise in high-pressure and high-temperature turbines is a tremendous asset to NET Power,” said Mr. Brown. “We founded NET Power because we believe the global power generation industry is in serious need of a low-cost carbon solution that is deployable in the near term. With Toshiba, Shaw and Exelon on board, we have assembled a first-class development team that will help NET Power rapidly bring this essential technology to the world.”

NET Power’s Allam Cycle is a flexible technology platform with transformative applications across the energy landscape. “NET Power’s cycle can be integrated into a number of industrial processes, such as liquefied natural gas facilities, enhanced oil recovery fields, and concentrated solar plants” said Rodney Allam. “In each case, NET Power produces cleaner electricity with far greater efficiencies than existing natural gas plants. In certain regions, such as the Middle East, NET Power is able to integrate with a number of processes at once, providing particularly large advantages.” Although the initial system will utilize natural gas, future applications of NET Power will use coal, integrating with current gasifiers, and biomass. “By also applying our technology to coal, the world will be able to employ a process that produces even cheaper electricity than existing coal technologies while eliminating air emissions, helping achieve a limitation of CO<sub>2</sub> levels in the atmosphere,” continued Mr. Allam. NET Power and its partners will commercialize these and other important applications of this technology platform.

NET Power LLC is a Durham, N.C.-based company affiliated with 8 Rivers Capital LLC, the inventor and early developer of the NET Power technology. NET Power LLC is commercializing its novel thermodynamic cycle, a platform technology with broad applications across the energy industry. Part of NET Power LLC is beneficially owned by Duke University. For more information, please visit NET Power's website at [www.NETPowerllc.com](http://www.NETPowerllc.com).

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As a result of these risks and others, actual results could vary significantly from those anticipated in this press release, and our financial condition and results of operations could be materially adversely affected.

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FOR IMMEDIATE RELEASE

June 15, 2012

**Toshiba Signs Agreement to Develop Next Generation Thermal Power System  
with NET Power, Shaw and Exelon**

*- To develop an innovative thermal power system  
that eliminates NOx emissions and captures CO<sub>2</sub> -*

TOKYO--Toshiba Corporation (TOKYO: 6502) today announced that it has entered into an agreement to develop a next-generation thermal power system, NET Power, with three leading United States companies: NET Power LLC, a power technology commercialization company and the owner and initial developer of the NET Power system; Shaw Group Inc., a leading global engineering and construction provider; and Exelon Corporation, a leading U.S. electric utility. The four companies aim to demonstrate NET Power's low-cost, high efficiency power generation cycle that produces little to no air emissions by commissioning a 25MW natural gas plant by 2014 and a 250MW full-scale natural gas commercial plant by 2017.

The companies are developing a system that produces a supercritical pressured carbon dioxide (CO<sub>2</sub>) stream to drive a turbine generator. The system eliminates the emission of nitrogen oxides (NOx) by burning a mixture of natural gas with oxygen instead of nitrogen-rich air and separates and collects pressurized CO<sub>2</sub> without adding on a carbon capture system. Such CO<sub>2</sub> can be subsequently used for enhanced oil recovery (EOR), a decades-old process that increases the amount of crude oil production from oil fields, or for underground sequestration.,.

Toshiba will develop the innovative system's high temperature and high pressure turbine and combustor, the key equipment in thermal power plants, by making best use of its material, combustion and cooling technology. NET Power and Shaw will work on overall plant engineering and Exelon will support development and operation of the 25MW plant, such as selecting the site, obtaining permits and commissioning the facility. By working jointly with Exelon, one of the leading U.S. electric utilities, and Shaw, who has rich experiences in power plant construction, the companies aim to achieve early verification of the system.

Going forward, Toshiba will promote sales of the system globally but with a particular focus on the U.S. and the Middle East, where the companies expect to see strong demand for EOR. The development of this system will contribute to the improvement and optimization of power generation efficiency and to the mitigation of climate change by supplying environmentally friendly power generation system.

### Outline of New Thermal Power Plant System

The new plant burns a mixture of natural gas and oxygen combined with CO<sub>2</sub> to produce a working fluid comprised mainly of CO<sub>2</sub> and H<sub>2</sub>O that is used to drive the turbine generator. The working fluid is then cooled through a heat exchanger, and H<sub>2</sub>O is separated from it to create a CO<sub>2</sub> stream. The CO<sub>2</sub> stream is pressurized and a major part of this flow is fed back to the combustor to begin the cycle anew. The remaining part of the CO<sub>2</sub> flow can be collected and sent into a pipeline.

### Conceptual Image of New Thermal Power Plant System

