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## Weathernews and Panasonic Announce a New Type of Air Conditioner equipped with the world's first AI-Prediction Air Purification System in conjunction with weather information

Weathernews Inc. (Head Office: Mihama-ku, Chiba-shi; CEO: Chihito Kusabiraki) and Panasonic Corporation (Head Office: Kadoma-shi, Osaka; President and CEO: Kazuhiro Tsuga) have announced the Japanese domestic market launch of “Eolia” WX Series/X Series, the world's first<sup>(\*1)</sup> in-room air conditioner to work together with weather information. This product features an innovative “AI-Prediction Air Purification System,” which predicts the pollution of air in a room and automatically operates the air purification system based on temperature, humidity, PM2.5 and pollen diffusion predictions provided by Weathernews. It is also equipped with a new function called “Non-Stop Running Decision,” which simulates whether non-stop running or turning off the air conditioner would make greater savings on electricity costs when the user is away from home. Through our collaboration with Panasonic Corporation to develop home appliances featuring weather prediction functions, Weathernews aims to support the world's top standards of healthy and comfortable living.

**“AI-Prediction Air Purification System” predicts PM2.5 and pollen and automatically starts operating the air purification system**

Testing of room air pollution levels conducted by Panasonic found that room air was more polluted by PM2.5 and pollen that entered the room from outside than by house dust and other pollutants that occur inside the room. They also found a direct link between the number of particles outside and the level of air pollution inside the room. This new product first obtains the data of predicted PM2.5 and pollen dispersal levels outside for each municipality provided by Weathernews. Based on its learning of the residential environment, “Eolia AI” predicts the timing of air pollution inside the room for that day and operates the air purification system before the room air becomes polluted. There is no need to turn on the system; it starts operating automatically before a large-scale dispersal of PM2.5 or pollen occurs, so this product keeps the room air clean better than opening a window. Also, “Eolia AI” refines its decision-making regarding the residential environment through day-to-day learning, so precision levels improve the more the product is used.



Panasonic Corporation Air-Conditioner Business Division Director Kiyoshi Shirato (left) and Weathernews Director Daisuke Abe (right)

**“Non-Stop Running Decision” enables smart savings on air conditioner electricity costs**

In a survey on air conditioners conducted by Panasonic, it was found that one in four people surveyed leave their air conditioner running when they are not at home, and more than half of this number think that non-stop running is more energy-efficient and reduces electricity costs.<sup>(\*2)</sup> Air conditioners consume much electricity when they are turned on, so electricity costs rise when the unit is frequently turned off. As a result, there are cases where electricity

costs are lower when the unit runs non-stop, but as there are differences in conditions such as outside air temperatures, residential environment, and the air conditioner's capacity and settings, it is not actually possible to say which is more economical.

With this in mind, this product is equipped with a "Non-Stop Running Decision" function, which compares the "electricity costs" needed to reach the optimum temperature and the "room temperature on arrival home" in the cases of "non-stop running" and "turning off the unit." By conducting multiple analyses of Weathernews temperature prediction data, preset information of time away from home, and the AI-learned residential environment of the room, this function predicts the electricity costs needed to reach the optimum temperature after coming home and the room temperature on arrival home. By using the "Non-Stop Running Decision" function, users can make smart savings on electricity costs.

\*1: In residential air conditioners, this technology obtains weather data and purifies the air automatically in accordance with the residential environment. (As of September 13, 2018)

\*2: "Survey Related to Air Conditioners" conducted by Panasonic; Survey period: June 8th-13th, 2018; Target group: 2,060 men/women of 20 years or older.