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Siemens offers cloud-based Web service for virtual power plants

With DEMS Compact, the Siemens Smart Grid Division can provide municipal utilities with a cloud-based Web service for virtual power plants. This service enables the utilities to interconnect their customers’ small distributed-energy resources together and offer the bundled power to operators of a large virtual power plant for marketing. Because the standard functions of the Siemens energy management system DEMS are adequate for setting up a small virtual power plant, software license costs are reduced. Another advantage of the cloud-based Web service is that there are no costs incurred for the computer hardware that is otherwise required. Siemens will be offering this service starting in early summer 2014. The company will prove the service jointly with RWE, which operates one of the major virtual networks. Here the Web service will initially support direct marketing and the use of distributed energy resources in the minute reserve range.

“With the cloud version of our distributed energy management system DEMS, municipal utilities can generate attractive revenues with their own individual consumption and generation capacities and at the same time play a role in developing the energy system of the future,” said Jan Mrosik, CEO of the Siemens Smart Grid Division. “As partners in our virtual power plant network, municipal utilities can reduce costs for smaller virtual power plants and substantially increase the economic benefits through our marketing on the energy markets,” said Andreas Breuer, Head of New Technologies/Projects, RWE Deutschland AG.
Municipal utilities play an important role in providing a sustainable energy supply in Germany. With their regional base, they are perfectly positioned to coordinate the increasing decentralization of power generation so that all participating market partners can gain the greatest possible benefit from renewable energy sources or the cogeneration of heat and power. Virtual power plants are available as an important resource to support this. An energy management system controls and optimizes the distributed generation plants. However, the costs required to set up and operate small virtual power plants so that they can participate in the energy and balancing power markets frequently exceeds the economic benefits. That’s why small and medium-sized municipal utilities in particular often dispense with this technology, and so they are unable to offer adequate products to their customers who operate the distributed generation plants.

Siemens provides a remedy for this dilemma with its new cloud-based Web service for virtual power plants. Based on the energy management system DEMS, which is already used in a large number of virtual power plants, the new version manages with just the basic functions. This includes communication interfaces for the distributed power generation plants, generation forecasts, and aggregation functions as well as a Web portal through which owners of distributed plants can release their generated power for marketing in the virtual power plant network.
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The Siemens Smart Grid Division (Nuremberg, Germany) offers power providers, network operators, industrial enterprises and cities an end-to-end portfolio with products and solutions to develop intelligent energy networks. Smart Grids enable a bidirectional flow of energy and information. They are required for the integration of more renewable energy sources in the network. In addition, power providers can run their plants more efficiently with data gained from Smart Grids. Software solutions that analyze data from Smart Grids will continuously gain importance. Thereby, the division uses in-house developments in addition to systems from software partners.
For further information please see: http://www.siemens.com/smartgrid

RWE Deutschland AG headquartered in Essen is responsible for the German activities of the RWE Group in the areas grid, distribution and energy efficiency, and it controls the German regional companies. The company has autonomous subsidiaries for distribution, the running of the distribution grid, metering and the sale of technical services. Other subsidiaries are responsible for activities relating to energy efficiency including electric mobility and for gas storage. It has a share in around 70 regional and municipal utility companies and has around 20,000 employees. For further information please see: http://www.rwe.com