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LAUNCH OF WADE:

THE WORLD ALLIANCE FOR DECENTRALIZED ENERGY

5-POINT BLUEPRINT TO CHANGE THE WAY THE WORLD MAKES ELECTRICITY

A group of major companies and national industry associations have launched WADE, the World Alliance for Decentralized Energy, to bring about change in the way the world makes electricity. Its key objectives represent a 5-point blueprint for a more cost-efficient and less polluting global electricity system.

WADE is the worldwide representative organization for those parties seeking the economic and environmental benefits of decentralized energy (DE) generation – including high efficiency cogeneration (also known as combined heat and power, CHP) and decentralized renewable energy technologies.

WADE's 5 Point Blueprint for the modernization of the world's electricity systems:

- Grid access on fair and transparent terms for all DE systems;
- Innovative market-based rules that encourage greater efficiency of electricity and heat generation;
- Full price recognition for both the locational value (the fact that DE systems produce energy where it is needed) and environmental benefits of DE;
- New incentives for incumbent monopoly electricity companies to reduce fuel use and improve efficiency;
- The establishment of well-resourced DE promotion organizations in every country.

Founding WADE members include national cogeneration and DE organizations in Europe (including COGEN Europe), the USA, China, India and Brazil. Founding company supporters include Solar Turbines (a division of Caterpillar), Wartsila and FuelCell Energy.

In total, WADE's direct and indirect membership support includes over 300 corporations around the world. Targets for new members are solar, wind and energy recycling companies together with charitable foundations whose objectives are climate change mitigation and sustainable economic development in developing countries.

WADE's Chairman is Tom Casten, Chairman and CEO of Chicago-based Private Power and founder of Trigen Energy, the most successful cogeneration development company in the US. Mr Casten, explaining the reasons behind the launch of WADE, stated:

"The developed world's centralized electricity system has served us well but is showing signs of age. According to the US Electric Power Research Institute, the US economy lost \$119 billion in 2000 through power failures and power quality problems – adding over 50% to the true cost of electric power. To meet 21st century needs and cut these costs, the world's electricity systems must dramatically improve fossil fuel efficiency, emit less pollution, minimize additions of transmission wires, deliver higher power quality and offer consumers more control and greater choice. To achieve these goals, we need a hybrid system of decentralized and centralized energy generation within an open and fair competitive market."

According to WADE Executive Director, Michael Brown:

"Cogeneration and decentralized energy systems offer proven, cost-effective and reliable alternatives to central generation, but only account for 6% of total worldwide electricity production. This imbalance is placing substantial and unnecessary costs on the world's economies and is causing needless pollution – WADE's job is to redress the balance and make the world safe for efficient cogeneration and decentralized energy systems."

'Notes for Editors' follow on p 3-4. For more information, contact:

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NOTES FOR EDITORS:

A. What is Decentralized Energy?

WADE defines decentralized energy (DE) as the high efficiency production of electricity (and heating/cooling where possible) near the point of use, irrespective of size or technology. Proven DE generation spans a wide range of technology, capacity and energy sources. Two key divisions of DE are:

- High efficiency CHP with capacities from 3 kilowatts to over 400 megawatts (and which include reciprocating engines, gas turbines, steam turbines, Stirling engines, fuel cells and microturbines).
- Many renewable energy systems and energy recycling technologies which capture otherwise wasted energy. These can include photovoltaic and biomass systems, on-site wind and water turbine generators, heat recovery boilers and backpressure steam turbines.

B. The Drawbacks of Central Power.

The traditional model of centralized power generation has at least five drawbacks:

- i. The world's central fossil-fired plants cannot recycle by-product heat and thus waste about 70% of fuel energy. *Even state-of-the-art CCGT plants waste about 50% - causing extra pollution and creating additional gas security of supply concerns.*
- ii. Transmission and distribution (T&D) system losses are 8 to 10% of generated electricity and those losses are growing due to transmission congestion. *Global T&D waste exceeds the combined annual electricity used by the world's 3rd, 4th and 5th biggest economies (Germany, the UK and France).*
- iii. Economies of scale increasingly favour smaller plants. Decentralized electricity generation at or near users requires only half the capital of new central power generation plus new transmission and distribution, and DE plants can be substantially more efficient.

- iv. Power failures due to T&D congestion are inevitable. Existing transmission and distribution wires in many countries are already loaded, but new networks are costly and unpopular.
- v. The central power station model is vulnerable to system disruption or destruction.

C. WADE's Activities

WADE is the only organization in the world which:

- Serves as a worldwide forum for all parties with an interest in decentralized energy
 - Assembles cogeneration /DE data and statistics – WADE will publish the first ever *'World Status Survey of Decentralized Energy'* in July 2002
 - Produces economic and environmental assessments of decentralized energy.
 - Provides direct advocacy on DE issues to key international agencies and organizations
 - Works to ensure that worldwide power sector reform creates real market opportunities for DE
 - Supports the creation of new national groups for cogeneration/DE
 - Nurtures and supports existing cogeneration/DE groups throughout the world
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