



MEDIA RELEASE

Solar Power All Through the Night

For immediate release: 1 February 2010

'Baseload' solar power; once a distant dream, is now a reality. While solar electricity was once limited to when the sun was shining, solar thermal energy can now operate 24 hours a day, even at night, with an ingenious and cheap storage method utilising molten salt.

"There are plants in Spain operating with energy storage right now, providing electricity all night long" Matthew Wright, Beyond Zero Emissions Executive Director said.

"Most Australians are not aware of this technology, even though it has the capacity to revolutionise the way Australia produces electricity and eliminate global warming pollution from coal".

Molten salt storage uses common salts, such as potassium nitrate, which are readily available and non-toxic. Using the sun's energy, these salts are heated to high temperatures and stored in insulated storage tanks. When electricity is needed, the heat in the molten salt is used to create steam to turn a turbine. This sort of electricity is dispatchable, meaning it can be sent out on-demand at any time of day, so it can replace the baseload electricity made from burning fossil fuels.

"The arguments for needing coal, gas or nuclear power to provide our electricity needs in a modern economy are completely false. Solar thermal power with storage is proven technology, which will reliably provide the backbone of modern 100 per cent renewable electricity grids." Wright said.

"The EU has been investing in the solar thermal storage power sector for more than a decade. The US, Middle East and North Africa have proposals in the pipeline that, combined, are five times greater than Australia's total coal-fired electricity capacity. Spain has 15,500MW of solar thermal plants approved through the planning process, more than enough to power all of NSW, and 34 massive power plants are under construction right now.

Wright said, "Australia is the country with one of the best solar resources in the world. We have some of the best researchers in this area too. Despite this, the Rudd Government remains in thrall to the coal lobby, investing in dead-end fantasies like carbon capture and storage (clean coal), while other countries develop their solar thermal expertise and manufacturing. The Spanish Government is supporting solar thermal power with a serious feed-in tariff for large-scale solar installations, and we should be doing the same here."

"Solar thermal power with storage will soon be cheaper than new coal-fired power stations according to US Department of Energy projections. The Australian Government should be positioning Australia at the forefront of the renewable energy revolution by planning for a transition to 100% renewable energy. Unfortunately the Federal Solar Flagships Program is shaping up to be a failure, with guidelines skewed to favour 1980s style daytime-only solar plants rather than the newer standard of "baseload" solar thermal storage plants that are being built now in Europe and the USA". Wright concluded.

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Recommendations for Solar Flagships Program:

http://media.beyondzeroemissions.org/Solar_Flagships_submission_31Jan10.pdf

http://media.beyondzeroemissions.org/BZE-Solar_Flagships-Technology_Overview_07Aug09.pdf

Fact sheets on solar thermal:

http://media.beyondzeroemissions.org/solar_thermal_basics_fact_sheet.pdf

http://media.beyondzeroemissions.org/solar_thermal_general_fact_sheet.pdf

Spanish Conference Presentation showing photos of some of the dozens of 24x7 solar plants

<http://www.csptoday.com/eu/presentations/day1/3Protermosolar.pdf>

24 hour 75% Capacity factor Molten Salt Storage Solar Power Towers

www.solar-reserve.com <http://www.torresolenergy.com>

References:

http://media.beyondzeroemissions.org/Spain_15500MW_approved.jpg

http://media.beyondzeroemissions.org/Spain_2440MW_in_construction.jpg

http://media.beyondzeroemissions.org/Spain_2440MW_in_construction2.jpg

BEYOND ZERO EMISSIONS INFORMATION:

Beyond Zero Emissions Inc. (BZE) is a not-for-profit, independent, volunteer- run organisation.

BZE's core goal is to facilitate the implementation of the social changes and technologies that will reduce the impacts of climate change and give our society and global ecosystems, a chance of surviving into the future.

BZE is involved in the following activities:

- education
- research
- transition planning/modelling
- climate change solution development
- advocacy

BZE accepts the scientific evidence that we have already allowed climate change to go too far, and must act immediately to reduce our levels of greenhouse gas emissions to zero and below.

Further information on Beyond Zero Emissions Inc.'s core values, goals & activities can be found at www.beyondzeroemissions.org