

Mid-Columbia Energy Initiative: Making Hanford Cleanup Green - 11371

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ABSTRACT

The Office of Environmental Management (EM) of the Department of Energy (DOE) has made considerable progress in the overall footprint reduction at Hanford with a clear vision for 2015. In addition Secretary of Energy, Dr. Steven Chu and President Barack Obama have committed the DOE to a 28 percent reduction in greenhouse gas emissions by 2020, aid in job creation, and deploy renewable technologies across the nation in order to lessen the dependence on foreign oil.

The Mid-Columbia Energy Initiative (MCEI) will provide solutions to national and Hanford energy challenges through local collaborations using local and regional energy resources (wind, solar, nuclear, biofuel, and hydro), leveraging research and development expertise and knowledge base, and engaging the trained workforce in the Tri-Cities. The Tri-City Development Council (TRIDEC) and its MCEI committee are focused primarily on the land that will be made available from the footprint reduction of the Hanford Site by 2015 thus supporting the creation of an Energy Park – the Pacific Northwest Clean Tech Energy Park.

The energy park will leverage the expertise from Pacific Northwest National Laboratory (PNNL), Washington State University, and the Tri-Cities Research District. Also the initiative will establish and strengthen the training and educational programs through Columbia Basis College, Washington State University-Tri-Cities and affiliates, along with local labor to support Hanford's and national needs for utility and workforce training in clean energy (carbon neutral) technologies.

INTRODUCTION

To begin with here is some background leading up to “green” weapons complex cleanup.

In the early 1980's at Hanford – the N-Reactor, and the Hanford Generating Project attached to N-Reactor were both still operating. Hanford was still producing materials for nuclear weapons. The annual DOE budget for Hanford was just about \$800 million/year

The Chernobyl accident happened in 1986, and N-reactor was shut down shortly after --- our community came to realize that the “production mission” at Hanford was over, many

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felt that “cleanup” would be cheap. The bottom was about to drop out of DOE Hanford funding!!!

As we found out – nuclear cleanup is difficult, and technically challenging. There have been a few surprises around every corner. Cleanup has required extensive research and new technology development, and new construction – and the Hanford cleanup budget has reached \$2 Billion/year.

But a few of us have also recognized – as the River Corridor has been cleaned up, the reactors cocooned, the 300 area buildings demolished – a time would come when this annual budget would start dropping, and the cleanup workforce would be reduced.

In December of 2008, Dr. Ines Triay, DOE’s Undersecretary for Environmental Management, announced the “footprint reduction” for Hanford and other DOE cleanup sites. But, she also dropped a new vision on us – turning some of the land that will be freed up – into Energy Parks.

And, her vision was that this would happen by the year 2015!

Had Dr. Triay not included her comment about Energy Parks ... many community members believe that our community and others at Oak Ridge, Savannah River and Idaho ... would have gone on our merry way ... thinking that – some day – we might have some land available for some kind of “industrial use.”

But she did mention Energy Parks – and nearly overnight, the Tri-Cities community, and the other weapons complex sites – could see a REAL vision, new opportunities, and a new mission for these DOE sites.

Rather than simply turning into a site that exists under what the government calls “institutional controls” to forever protect the most contaminated area out in the Central Plateau – we now have an opportunity to “become green” and even help DOE move toward a new future, a renewable energy future.

This background leads me to our Mid-Columbia Energy Initiative.

Immediately after Dr. Tray’s announcement, TRIDEC in the Tri-Cities, called a meeting of some 20 individuals representing local energy companies – PUDs, solar manufacturers, BPA, Energy Northwest (our state’s nuclear operator), and Mission Support Alliance, the company that operates the utilities and support on the Hanford Site. Twenty were invited, 27 showed up! This group has been meeting bi-weekly or monthly since January of 2009, and it now has become a formal committee of TRIDEC, called the Mid-Columbia Energy Initiative.

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Just a few weeks ago, in mid-January, President Obama signed an Armed Services Bill that authorizes the Secretary of Energy to establish Energy Parks on former defense nuclear facility sites. This bill is a key step to moving energy development on the weapons complex sites ahead.

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The Tri-City Development Council (TRIDEC) and its MCEI committee are focused on the land that will be made available from the footprint reduction of the Hanford Site by 2015 thus supporting the creation of an Energy Park – the Pacific Northwest Clean Tech Energy Park.

The Energy Park should advance the Hanford clean up by providing alternate energy sources for the Department of Energy's (DOE) Waste Treatment Facility to replace the 45,000 gallons/day of diesel currently identified for the Steam Plant, and provide 70 Average megawatts of power. By solely switching from diesel to natural gas, the carbon footprint will be reduced by a minimum of 40% and the monthly operating costs to operate the steam plant would be reduced by \$1 million/month. These cost savings could then be utilized to accelerate "green" clean up across the Hanford site. Also the utilization of alternate energy will provide an excellent opportunity to showcase the DOE's leadership with implementation of Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance".

The energy park will leverage the expertise from Pacific Northwest National Laboratory (PNNL), Washington State University, and the Tri-Cities Research District. Also the initiative will establish and strengthen the training and educational programs through Columbia Basis College, Washington State University-Tri-Cities and affiliates, along with local labor to support Hanford's and national needs for utility and workforce training in clean energy (carbon neutral) technologies. The training programs currently established along with ones to be established, coupled with the local expertise will provide DOE and the community with family wage jobs and further economic diversity as the Hanford site clean up is completed.

To ensure an increase in production of renewable energy for the Hanford site's mission and Northwest Region's energy needs today and in the future, action must be taken now.

Our Tri-Cities community is looking forward to this new – Energy – mission. We have supported national missions since 1943, and are looking forward to creating this new future.

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