



# OBS INC.'S GREEN REPORT

September 17, 2009

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Volume 1, Issue 1

OBS INC.'s innovative design and creative approach to application engineering has resulted in a breakthrough GREEN product for the future of Mobile Libraries. Our commitment to building responsible, value added products to serve our customer base sets us above and apart from the competition.

“Employing the use of existing solar technologies together with new fuel efficient Hybrid Power Generation Systems, the OBS INC. design/build team has produced and delivered the first of our Green solutions for the bookmobile world.”

## How to make your next outreach vehicle LEAN and GREEN...

We all want to go there. We all see it as the right thing to do. To be able to go about the business of our lives and our work in a way that is mindful of the environment. We see and smell and hear the threats to our world and think to ourselves, “we SHOULD fix that....we CAN change.....we MUST do something now!”

OBS INC., an OEM manufacturer of Specialty Vehicles for the Library, Education, Medical and Emergency Management market, is now building bookmobiles that are making headway towards this greener, brighter, more energy efficient future. Employing the use of existing solar technologies together with new fuel efficient Hybrid Power Generation Systems, the OBS INC. design/build team has produced and delivered the first of our Green solutions for the bookmobile world.

ity™ chassis, OBS designers began the arduous task of integrating various green technologies into the overall bookmobile design for a compact, so-

(in the Midwest for sure!). The only way to support these systems on a vehicle is through the use of a generator, which until now, would produce a



Roof mounted solar panels (above), the unit's power control panels shown below.

phisticated, yet easy to operate power system without sacrificing creature comforts. In terms of energy usage, it's easy to understand that the two headed monster of creature comforts is air conditioning and heating. We all see our electric bills jump during the warm summer months and heating



The International® 3200 Integrated Mobility™ low floor chassis. The platform used to showcase GREEN technologies at OBS.

Beginning with the new International® 3200 Integrated Mobil-

constant power output whether the demand was small or large. This meant that fuel was being consumed at a constant rate whether the need was there or not. The Cummins Onan Hybrid Quiet Diesel (HQD) power unit, with its variable-speed, variable-output electrical generator was developed to address this problem. To augment the on-board hybrid power unit, an array of solar panels was employed to keep battery banks charged and provide sufficient power to operate 12 volt auxiliary equipment. The panels were roof mounted and angled to maximize exposure to the costs run high during the winter

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**The Jefferson County Library's GREEN Low Floor Bookmobile**

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during the bookmobiles typical working hours. Ganged together, the energy generated from these solar panels was enough to run ventilation fans and interior 12 volt lighting with enough power left over for charging cell phones. Because of the constant, low amperage, nature of solar panel electrical output, the chief benefit is the ability to constantly apply a charge amperage to the on-board battery banks. This results in taking less energy off the grid at night, and or burning less fuel, through the use of the generator, to keep these battery banks charged to capacity.

The third benefit to this hybrid system is maybe the most noticeable—quiet comfort. Key to the systems operation is a powerful inverter, used to transform energy stored in the battery banks, to 120 VAC power that can run computers, overhead lighting, and yes, even air conditioning and heat-

ing. In effect, the generator acts as a large battery charger that only comes to life when the battery bank is depleted to a pre-set level and when other electrical load functions demand it. As Cummins Onan describes it; "Say you're running two air conditioner units and the third unit kicks in. To handle the increased power demand, the HQD instantly and automatically draws the needed power boost from the batteries through the inverter. Meanwhile the diesel power unit ramps up it's RPM's until it can handle the increased power load. When the power load drops, the power units RPMs automatically cycle back down." The net result is a 20% reduction in fuel consumption and a 50% reduction in noise and vibration. Results that are certainly worth reaching for.

At OBS INC. we were excited to have the opportunity to install the first hybrid generator on a bookmobile. This s a funda-

mental shift in green technology. The application of conventional power sources, when combined in this way, is truly an example of "the whole being greater than the sum of its parts". It is capable and user friendly, which is important to our customers. Maintenance on the various components comprising the HQD is simplified with one-stop visits to the closest warranty facility saving your library staff time and keeping the bookmobile on the road.

OBS INC. subscribes to the belief that we should, we can, and in the end we must be part of the solution for a greener world. We invite you to contact us to see how we can help your mobile outreach program be part of the solution.

(OBS INC. can be found on the web at [www.obsinc.net](http://www.obsinc.net) or call 1-800-362-9592 Ext. 320 to speak with a Sales Consultant.)



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