



**Capacity Development Seminar**  
**“Powering the Future We Want - Recognizing Innovative Practices in**  
**Energy for Sustainable Transport”**  
**2016 UNDESA Energy Grant**  
14 - 15 December 2016  
Conference Room 9  
United Nations Headquarters,  
New York, USA

## **SUMMARY NOTES**

On Wednesday 14 December and Thursday 15 December a Capacity Development Seminar was held following the Award Ceremony for the winner of the 2016 UNDESA Energy Grant *Powering the Future We Want*. The Division for Sustainable Development organised the Seminar to provide an opportunity for the 7 grant finalists and one winner to disseminate their experiences, knowledge and plans in the implementation of projects that promote energy for sustainable transport. The Agenda for Session 1 and Session 2 of the Seminar and list of panellists are attached.

### ***Session 1***

Session 1 began with opening remarks by Dr. Ivan Vera, Chief of the Water, Energy and Capacity Development Branch, UNDESA. Dr. Vera’s introduction acknowledged the importance of the Seminar for allowing the 8 organisations that reached the top of the evaluation process to disseminate knowledge and share best practices and experiences with other practitioners regarding their projects involving energy and sustainable transport. He explained that although sustainable transport does not have its own stand-alone goal in the 2030 Agenda for Sustainable Development, there is a specific Target, 11.2, which calls for providing access to safe, affordable, accessible and sustainable transport systems for all.

The Moderator for Session 1 was Mr. Chris Martenson, Founding Partner of *PeakProsperity.com* and Member of the Advisory Council for the UNDESA Energy Grant. Mr. Martenson invited the panellists to each give a 20 minute presentation. The first presentation began with Ms. Fiza Farhan, who reviewed her journey from clean energy to sustainable transport. Ms. Farhan launched “Lighting a Million Lives” in 2013 to develop a solution to ensuring access to affordable, reliable and modern energy for thousands of off-grid villages in Pakistan. During this project, it was observed that women were being held back in three critical areas of development: access to school; timely medical care; and lack of market linkages for small scale entrepreneurs. The common denominator was lack of sustainable, secure and affordable transportation within their rural settings. Ms. Farhan’s proposed model is to provide 100 solar powered rickshaws to 100 women entrepreneurs in 100 off-grid villages of Pakistan.

The next presentation was given by Mr. Sean Gerard Villoria of GerWeiss Motors Corporation. Mr. Villoria has been manufacturing electric vehicles since 2008. During his presentation, he walked participants through the development process for the etrike ecosystem near Boracay Island, Philippines. GerWeiss bears the responsibility for manufacturing and supplying etrikes, supplying the batteries, as well as establishing and operating the battery and maintenance stations. The etrikes are powered by renewable sources and create livelihood for the drivers during the day and also provide a source of electricity at night for lights and cooking. When GerWeiss leases out the batteries, they have around a 2.5 year payback period. The company wishes to expand the number of batteries, install a GPS tracking system and electronic pay system, and build a solar field to reduce electricity costs and create a fully closed zero carbon system.

The third presenter was Mr. Mohit Kochar representing KPIT Technologies Limited. KPIT is a global technology company specializing in providing IT Consulting and Product Engineering solutions and services to Automotive, Manufacturing, Energy & Utilities and Life Sciences companies. Mr. Kochar explained that KPIT has developed electric hybrid conversion solutions for public transport buses in India. He elaborated how the system is versatile, scalable and suitable for a large range – from mini to 12 meter buses. The busses come with air conditioning, Wi-Fi, vehicle health monitoring and diagnostics, emergency voice calling, surveillance network systems, automatic vehicle location, passenger information systems and a passenger information app. In the future, KPIT hopes to establish new partnerships and target market segments, create a vendor base, research battery technologies, form greater awareness of EV and IT associations, and conduct global outreach.

The last presenter of the day was Ms. Carolina Franco with the Medellin Mayor's Office- Mobility and Transit Department. Ms. Franco described the process of restructuring Medellin's collective public transport. Medellin has a multi-modal system which includes Metro; Metrocable; Metroplus (BRT); Tramway, electrical and conventional buses, taxis, public bicycles and pedestrian routes. The mass transit system mobilizes around 1,085,000 passengers daily. Medellin also uniquely has outdoor escalators to carry pedestrians up the steep hillsides, including in neighbourhoods that were once reputed to be unsafe. Recently, new tramways, metrocabes and bicycle paths have all been debuted. However, 29.4% of Medellin's citizens ride the bus as their primary form of transport. The city hopes to expand bus lines in the downtown area, and create a unified rate to decrease inequality for utilising public transport.

## ***Session 2***

Session 2 of the Capacity Development Seminar began on the morning of 15 December 2016. The moderator of the session was Mr. John Hofmeister, Founder and Chief Executive of Citizens for Affordable Energy and Member of the Advisory Council for the UNDESA Energy Grant. Mr. Hofmeister invited each of the participants to give a 20 minute presentation.

The first presentation during Session 2 came from Mr. Cyril Negre, CEO of Motor Development International (MDI). MDI designs compressed air car prototypes called AirPods and takes pride in utilising many sustainable transportation solutions, such as: using a universal energy carrier (air); using local supplies; having a mini factories network that employs 30% more workers than the

average car manufacturer; utilising a flexible production process due to composite materials; having low energy/water consumption; conducting local production & distribution; affordable products; and a quick refill time for the vehicles (2 minutes). MDI has partnerships with Tata Motors, Veolia and KLM airlines. In its next phase of development, Mr. Negre explained that MDI would like to construct a 2.0 AirPod cargo model. During this phase, they will outfit the cargo version with refrigeration. Without any additional consumption, the refrigerated AirPod Cargo will allow clean transportation of perishable food, medication and organs.

The following presentation was given by Ms. Amrita Chatterjee from the South Asian Forum for Environment (SAFE). SAFE works at the science-society interface towards sustainable development in the Indian Ecoregion. Ms. Chatterjee explained that the swelling load on rural vehicles due to limited public transport options is deteriorating air quality, while habitat health and commuter time has been compromised. In Kolkata, SAFE has worked to help put a ban on polluting urban autos, bring in CNG and battery run vehicles; rehabilitate the electrical Tram car; and conduct a mass campaign against a blanket ban on cycles. Next, SAFE hopes to install floating captive solar energy plants of 10KVA placed intermittently on inundated lands and rivulets on the Sundarbans in West Bengal, India. These devices will charge electrical motor vans and boats to provide sustainable, cost effective and safe transportation for inter-island transit.

The third presentation was provided by Mr. Moez Jomâa representing SINTEF, the winner of the 2016 UNDESA Energy Grant. SINTEF is an independent not-for-profit research institute based out of Norway that initiates and coordinates large research and development projects in cooperation with leading European R&D organisations, authorities, industries and utilities within renewable energy, energy management, maritime and electric ferries, ICT and smart cities. Mr. Jomâa elaborated that SINTEF's main activities in sustainable transport are electromobility, biofuels, hydrogen and fuel cells, intelligent transport systems, power-roads and sustainable air and sea transport. With the grant, SINTEF will build a demonstration case in Tunisia. The project will upgrade an existing ferry and retrofit it to become a solar-powered electric ferry. Tentatively, the ferry will connect Jerba Island to the main land of Tunisia. In addition, capacity building workshops will be organised for relevant Tunisian and MENA region stakeholders and at least two project presentations will take place during the climate conferences. A project website will be established for dissemination of the progress and results.

The final presenter of the Capacity Development Seminar was Mr. Moustafa Sowou with SNV, an international not-for-profit development organisation headquartered in the Hague. Mr. Sowou was representing the Niger based team and discussed the use of biofuel to promote sustainable transport and rural development in the Tahoua municipality. Road transport is a major contributor to local air pollution in Niger, with the National GHG Inventory Report reporting that emissions from this sector are the highest at 41% of total emissions in the country. Bio4TDev is a project that SNV hopes to use to improve the living conditions for rural households by utilising the native Neem trees for direct usage as biofuel in local vehicles. This can be made possible by local residents who will be employed in seed collection and processing. Neem biofuel has been processed innovatively in surrounding villages and has impacted more than 2,000 people and reduced greenhouse gas emissions.

Following the presentations an enriching discussion ensued among all of the participants. The finalists acknowledged some of the challenges that they face, such as value-added taxes and the encouragement for new products rather than used products. In some cases, the imports of second-hand solar panels have been forbidden. In addition, for some finalists, capital expenditure is higher than operating expenditure on the back end, causing financial strain. Participants discussed the desire for more government funding and subsidizing of material parts. At the same time, they did acknowledge that a market evolution is already taking place for some of their supplies and this has been encouraging. The group discussion then led to what could be done to create a better enabling environment for their work. One participant provided an example of a good incentive that takes place in Pakistan: the policy of no import duties for combining the import of solar panels and batteries.

The moderator asked the finalists how they became aware of the grant opportunity and for suggestions on how to better spread the word of the grant programme. Some participants said they heard about the grant through other NGO's, while others discovered it through the grant website or the Sustainable Development Knowledge Platform, and one finalist mentioned that they discovered it through last year's winner, We Care Solar. Suggestions for spreading awareness were to collaborate more with institutes and groups that have established widespread networks, and also to notify the UN country missions so that they can engage potential applicants at the local level.

The Capacity Development Seminar ended with closing remarks by Dr. Ivan Vera, who expressed his appreciation to UNDESA for organizing the event. Dr. Vera thanked the representatives of all eight selected organisations for participating in a valuable discussion and for presenting initiatives, programmes and projects which have proved that with leadership, innovative technologies and effective partnerships; together the world can be transformed.



**Attachment 1**  
**AGENDA**  
**Capacity Development Seminar**  
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<b>Wednesday, 14 December 2016</b>	
<b>15:00 – 15:10</b>	<b>Opening Remarks: <i>Dr. Ivan Vera, Chief of Water, Energy and Capacity Development Branch, UNDESA</i></b>
<b>15:10 – 18:00</b>	<b><u>Session 1</u></b>
15:10 – 15:20	<b><u>Moderator: <i>Chris Martenson, Member, Advisory Council</i></u></b>
15:20 – 16:00	<ul style="list-style-type: none"><li>• <b>Welcome</b></li><li>• <b><u>Panel Presentations (20 minutes each)</u></b> <i>-Ms. Fiza Farhan</i> <i>-GerWeiss Motors Corporation</i></li></ul>
16:00 – 16:30	<b><i>Coffee Break</i></b>
16:30 – 17:10	<i>-KPIT Technologies Limited</i> <i>-Medellin Mayor’s Office- Mobility and Transit Department</i>
<b>17:10 – 18:00</b>	<ul style="list-style-type: none"><li>• <b>Discussion</b></li></ul>
<b>Thursday, 15 December 2016</b>	
<b>10:00 – 13:00</b>	<b><u>Session 2</u></b>
10:00 – 10:10	<b><u>Moderator: <i>John Hofmeister, Member, Advisory Council</i></u></b>
10:10 – 10:50	<ul style="list-style-type: none"><li>• <b>Welcome</b></li><li>• <b><u>Panel Presentations (20 minutes each)</u></b> <i>-Motor Development International SA (MDI SA)</i> <i>-South Asian Forum for Environment (SAFE)</i></li></ul>
10:50 – 11:20	<b><i>Coffee Break</i></b>
11:20 – 12:00	<i>-SINTEF</i> <i>-SNV Netherlands Development Organisation</i>
<b>12:00 – 12:50</b>	<ul style="list-style-type: none"><li>• <b>Discussion</b></li></ul>
<b>12:50 – 13:00</b>	<b>Closing: <i>Dr. Ivan Vera, Chief of Water, Energy and Capacity Development Branch, UNDESA</i></b>



**Attachment 2  
LIST OF PANELLISTS  
Capacity Development Seminar  
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## **Session 1**

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### **Moderator**

Mr. Chris Martenson  
*Founding Partner, PeakProsperity.com  
Member of Advisory Council UNDESA Energy Grant*

### **Panellists**

Ms. Fiza Farhan  
*Global Strategic Development Advisor*

Mr. Sean Gerard Villoria  
*GerWeiss Motors Corporation*

Mr. Mohit Kochar  
*KPIT Technologies Limited*

Ms. Carolina Franco  
*Medellin Mayor's Office- Mobility and Transit Department*

# Session 2

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## **Moderator**

Mr. John Hofmeister  
*Founder and Chief Executive, Citizens for Affordable Energy*  
*Member of Advisory Council UNDESA Energy Grant*

## **Panellists**

Mr. Cyril Negre  
*Motor Development International (MDI)*

Ms. Amrita Chatterjee  
*South Asian Forum for Environment (SAFE)*

Mr. Moez Jomâa  
*SINTEF*

Mr. Moustafa Sowou  
*SNV Netherlands Development Organisation*