Award competition Subject: What is the most burning and urgent single energy challenge in today’s world and how do you think governments and businesses should effectively address them?

‘Call For Action: The Energy Future In Need For a Breakthrough From Weather Drastic Changes’

Imagine the following: 90-120 mph winds that last as long as 20 hours and wind waves that can rise to 40 feet while creating large portions of whiteouts covered regions. Also, volcanic mountains’ 17,000 feet tall outburst for 23 hours with 750 degrees of intense heat, carbonizing most organic material in the surface that we so happily consume on an everyday basis. Now add to it deadly hurricanes, harsh floods, ferocious fires, severe drought, rising seas, raging tornados etc. A few years back no one would predict that an arctic front can crash into moisture-laden air from in the mild temperature area of Gulf of Mexico and on a warm season, yet it did, causing one the biggest windstorms in US history. Weather temperatures are changing drastically and occasional disasters seem to be on a mission to destroy anything humans believed and worked upon for decades.

It is no longer predictions of unfaithful prophets or delusional scientists, it is indeed an outlook of our future, just decades away from occurring. It is up to debate whether climate change and global warming are the explanation to such weather crises, however, what is not for debate is the fact that they form the other part of weather threats to our community, economy, national security and more importantly energy stability. What sense does it make to ensure a fossil fuels production and global infrastructure of export for the next 100 years if extreme weather changes can confiscate our efforts for good.

Last week Prince Charles associated the Syrian crises and exclamation of terror to the drought and weather changes in the Middle East. Now, it’s easy to judge him and say he is completely wrong, nevertheless, I find his theory interesting enough to investigate. Preceding the Syrian civil war, the rainfalls levels across Syria hit bottom and heavy drought period began. That later led to crop failures that forced increase in food prices. In the past, the main reason
cultivation in Syria was flourishing was due to the fact that Syria was one of the luckiest countries in the region with the highest rainfalls along the Mediterranean Coast. About 50% of population was living in rural areas and crops were their main source of income and food reserves. The drought was foreseen and so did the other weather changes in the region, yet the Syrian government didn’t do anything to prevent it. It didn’t prepare food storage or invest in cost-effective water solutions and mainly it abandoned her civilians. The despair, misery and sense of frustration by the Syrian people can trigger violent acts. If that was simply the impact on one nation, what makes us so sure that the rest of the globe wont react the same way or worse when weather start sending his signals elsewhere.

The real result on these severe weather changes lays on its impacts: water shortage and temperatures rising. Water is a crucial and basic necessity for living but even more for the current natural gas industry. The latest findings of unconventional sources of natural gas offshore Israel and Cyprus and the previous US shell gas discovery require extraction methods used by significant amount of water. Extracting unconventional gas requires a process called hydraulic fracturing or “hydro-fracking.” The process involves drilling vertically down to where the gas is trapped and then turning to follow the deposit horizontally. A mixture of water and chemicals sent through the drill hole at high pressures creates fractures in the rock and allows the trapped natural gas to escape to the surface. After the gas is extracted, an additional 400 million gallons of water per day are consumed for natural gas refining and pipeline operations. These figures hasten the immediate need of water reserves for the future of our electricity, fuel and other energy appliances consumption.

The 21st century has established that there is no natural reserve it can’t utilize to humans’ advantage. That said it could be the 22nd biggest invention if we can create a way to transform the extreme weather changes into energy production. For example: the same power the drives earthquakes could possibly become the power behind a future power plant. Or technology can develop a solution to store floods water and later together with water treatments solutions
transmute it into drinkable clean water. More than just hypothetical solutions, governments must focus their main attention on investing innovative technologies for water solutions such as water reuse, wastewater storage and recovered plants and dispense them worldwide as soon as possible. Businesses can make renewables energy plants such as solar available at all the dry regions where droughts are common and invest in a technology that can connect it to the rest of the world to use. Weather forecasters could advice businesses according to their future windstorms data on where geographically build wind farms and how to make the rest of the globe benefit from too.

Maybe 100 years from now, our nations will be fueled with anxiety from climate change scars. Citizens of the world will be enforced to allocate all their forces for survival and finding food while abandon oilrigs unproduced. Clean water to extract gas shells will be unfound. And a safe climate to lay distribution pipes will be unreliable. The same energy stability that is the source of world today and trillions of funds flow everyday will discontinue to function. We have to make a change. The apocalypse will not be fulfilled if our governments and the global energy industry commence preparing for it. Even throughout history, there were always wise people who predicted a catastrophe before it was due to happen and were saved by a solution. We have seen it in the second half of the 19th century when the Noble brothers exited the Azerbaijan's oil market just before oil wells and factories were confiscated by the Bolsheviks, in 1939 when Jews fled Europe to North or South America with the rise of pogroms against them, or when investors backed out the US housing market earlier the 2008 financial crises. The energy future depends on us being wiser and acknowledging awareness. Lets use the Syrian situation as a crucial learning point and begin today protecting our natural assets, society and the future.