**Solar Investor Conference**

**Yerevan, January 25, 2017**

- The WBG has long been a partner of the Government of Armenia in its efforts to reform the power sector through investment financing operations, policy dialogue, and technical assistance.

- The use and development of renewable energy has been an important part of the transition from the energy crisis of the 1990s to the current more stable situation, and in our view the use of renewable will become much important in the years to come as demand grows and ageing thermal plants are retired.

- The Government's commitment to developing renewable energy remains as strong as before and there is now more urgency, given a looming gap between supply and demand. While Armenia has invested significant resources in developing hydropower, other renewable exploration has been lagging, and if Armenia is to truly transform its economy, that needs to change. Shifting Armenia's development path towards a more diversified and greener energy mix has benefits for the economy, for the environment, and for investors who are "early in" to a sector that holds much promise.

- One of the distinctive aspects of the potential development of a more robust solar energy subsector in Armenia is the possibility of seeing

Armenian businesses learn more and grow into exciting new roles. Just as the World Bank Energy Efficiency Project helped grow a whole new market of Armenia companies specializing in selling installing and maintaining specialized technology and building materials, so might a more ambitious solar agenda in the country provide new market opportunities for clever and tech-savvy Armenian entrepreneurs.

- Armenia's Scaling-up Renewable Energy Program Investment Plan, which was developed by the Government with support from development partners and approved by the Climate Investment Funds in June 2014, identified geothermal power, utility-scale solar PV, and solar heating as priority areas for support and future scale-up.

- Since then, the World Bank and other partners have worked with Armenia to invest in serious exploratory efforts on utility-scale solar, and the fruits are here with us today.

- We have an exciting opportunity to look into the technical and financial details of a new project – one that can help build a sunny, efficient and green future for Armenia.

**Plenary Presentation: 11:40a**

**Renewable energy context**

- Renewable energy is a fundamental and growing part of the global energy transformation. Increasingly, renewables have become the first choice for expanding, upgrading and modernizing power systems around the world.

- More than 170 countries have established renewable energy targets and many of them are looking to partner with an increasingly active private sector in order to achieve them.

- In the power sector, renewables are growing at unprecedented rates, far outpacing growth in conventional technologies. According to the International Renewable Energy Agency, capacity from renewables represented 61% of all new power generating capacity added worldwide in 2015, overtaking coal additions for the first time.

**Global solar experience**

- In this context, solar power, once a distant possibility, can be a game changer for many low and middle-income countries that are swiftly embracing this clean, renewable source of energy to close their electricity access gaps and meet climate mitigation goals.

- This is especially true for solar photovoltaic, which in 2016 represented 40% of total investments in renewable energy (excluding large hydropower).

- Recent analysis by the World Bank shows that, if deals are properly structured, total installation costs for utility-scale solar can be as low as 1,000 US dollars per kilowatt for typical utility-scale solar PV systems.

- In the specific case of successful auctions, these were governed by clear, concise rules and selection criteria, with realistic timelines and workable local content requirements.

- These are not theoretical suggestions from the World Bank about what the ideal situation is … these are proven elements for success. We have seen practical examples across the world of how deals succeed, or fail.

- For example, last year a low-income African country with high country risks was able to attract many quality investors and achieve record low prices in its first solar auction. This was the result of a well-structured and transparent auction process, taking into account local specifications as well as support of loans and guarantees from the World Bank Group.

- In contrast, we have witnessed setbacks that taught us lessons about even sophisticated countries making mistakes.

- In a very large mid-income country with a high international profile as an attractive investment destination, they suffered a failed solar auction, mainly due to the lack of grid information, overly stringent local content requirements, and unrealistic bidding timeline.

**Importance of adequate enabling environment**

- We have seen a rapid surge in installation and growth of solar photo-voltaic, or "PV", technology for generation in many developed and developing markets. This has been driven by the private sector, demonstrating the importance of the right enabling environment.

- There are actually no implicit risks in PV technology that the private sector cannot absorb. In fact, the high modularity and simplicity of PV allows projects to be built and operational in very short time frames.

- However, despite this simplicity and the significant cost reductions in solar PV technology, its deployment in some countries with good solar resources still faces difficulties due to a combination of challenges, the main one being a weak enabling environment.

- What would characterize a "weak enabling environment" in this sector? Well, the weaknesses might be inadequate policy and regulatory instruments such as grid codes or rules to allow IPPs to get access to the grid and generate electricity; financially weak off-takers; or limited

government capacity for efficient public procurement of private power generation and for contractual negotiations. These factors generally lead to higher financing costs.

- Policy makers have thus a very important role to play in helping to further decrease costs of PV by bringing financing costs down through de-risking projects and, in some cases, enabling access to low-cost capital.

**Closing remarks**

- I invite all of you to provide feedback on the opportunities, risks and barriers that you see to the development of the first utility-scale solar project in Armenia. And I sincerely hope the next two days will entice you to participate in this pioneering project.