AMEU Workshop - Increasing the licensed threshold for embedded generation

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POTENTIAL RISKS

- **The potential loss of revenue to Municipalities** - however this is of course countered by the saving on lower import from Eskom
- **Huge loss of electricity income -** unlimited large SSEG licenses
- **Potential larger component of unrecorded** / unregistered SSEG
- **Danger to infrastructure and personnel**, due to increase in illegal SSEG
- **Reversing meters** will make it impossible to accurately measure usage
- **The measurement of losses** is done by comparing import energy to total sales. With more sources, this type of calculation will be useless
- **Overloading of LV cables** which will increase network technical losses if energy is purchased from direct from SSEG exporters
- **If wheeling tariffs are set too low**, no profit will be made from sales
- **Sales volume reduction**/long term budget implementation projects

POTENTIAL BENEFITS

- **Obvious easing of load constraints**
- **Possibility of competitive electricity pricing** as alternative to Eskom
- **Less reliability on Eskom** depending on the nature of the generation installed, whether it is Hybrid or not.
- **Total technical losses will be reduced** due to generation being closer to the point of consumption, thereby reducing such losses.
- **Hybrid systems could eliminate load shedding** in the rural areas in smaller Munic's with relatively low demand/consumption.
- Green energy sales will comply with **International standards**
- **Less carbon footprint**
- **Job creation** in the SSEG market place

CONSTRAINTS

- **Level of regulation** in light of the deregulation of licenced generation
- **Wheeling is still not well understood** and tariffs will have to be set very carefully for infrastructure to avoid massive losses of revenue.
- **Severe risk to smaller Municipal network** stability due to excess illegal export onto network resulting in voltage and power quality problems.
- **Network power factor issues** could also lead to higher technical losses.
- **Lack of expertise** to perform detailed grid impact studies on network simulation - could result in unstable networks and revenue losses
- **Green energy needs injection** to have long term generation capacity
- **Limited resources** to introduce HV battery storage capacity for imported green energy (to off-set high demand rates)

SUPPORT NEEDED

- **Effective measurement** of generation by SSEG
- **Municipalities report to NERSA** on energy purchased from SSEG, this is the only legal registered installations that have purchase contracts With the Municipality purchasing excess generation from the sites and **ever increasing illegal SSEG**, Municipalities will need assistance to measure these exports into their networks
- **Need for professional help** with network simulations and detailed grid impact studies
- **Financial injection** needed from National Treasury for Municipalities for both green energy partnerships and HV battery storage
- **Set up contractual relationships** with International partners
- **Partnerships between SSEG production and Municipalities** need to be legislated, to off-set risk and to increase job creation