



MOIT/GIZ ENERGY SUPPORT PROGRAMME

Together for a better energy future

Supporting to Rooftop Solar Development in Vietnam - GIZ Activities

Friday, September 6, 2019

Key Technical Requirements for Successful RTS

- Use of **high-quality components** that follow **international certification** (e.g. IEC, UL) and testing (e.g. TUV) standards for PV modules, inverters, cabling and mounting systems.
- **Well trained and certified solar installers** that are familiar with quality standards (for equipment/components and best-practice installation) and safety standards.
- **Good technical design** of solar systems and **high-quality installation** following highest international standards.
- **High awareness** on solar technology, investment procedures, business models and reliable suppliers and installers **among market stakeholders**, investors and private customers.



Overview: Supporting to RTS Development – GIZ activities

Key focus: Standard **equipment** and **certified installers** to PV rooftop systems in Viet Nam.

- Support to **develop the regulatory framework** - grid connection standards (Smart Grids project with ERAV).
- Review, develop and publish **Technical Standard Guidelines**, quality standards for RTS equipment, installation and operation.
- Develop **Investment Guidelines for RTS**
- Develop a **“Certified Solar Installer” programme for/ with TVET colleges** (with GIZ TVET Programme)
- Develop **standardized contracts/leasing contracts** as reference to be used by investors.



SOLAR LEASE AND MAINTENANCE CONTRACT¹
 THIS SOLAR LEASE AND MAINTENANCE CONTRACT (the "Agreement") is made on []
 BETWEEN
 (1) [] is [] [] company incorporated in Vietnam, with enterprise registration code number [] issued on [] by the Department of Planning and Investment of [] and whose registered office is at [] OR [] citizen, holding ID Card No. [] issued on [] and residing at [] (the "Customer"); and
 (2) [] is [] [] company incorporated in Vietnam, with enterprise registration code number [] issued on [] by the Department of Planning and Investment of [] and whose registered office is at [] (the "Contractor")
 (Each of the Customer and the Contractor is hereinafter referred to as a "Party" and collectively as the "Parties").¹

Highlight: Investment Guidelines for RTS

Within the framework of German funded **Syntegra/ Cat Tuong cooperation project**

Key target groups:

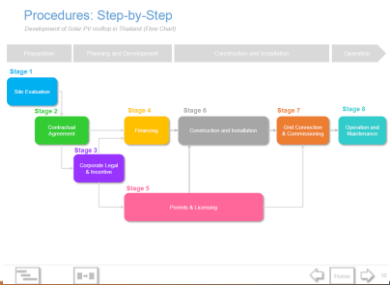
- Developers/ investors of CIRT systems
- Household investors



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The Guidelines will provide information on **project development process:**

- Information on RTS Development: framework conditions in Viet Nam including benefits, support mechanisms and available business models.
- All steps of PV project development and implementations
- Standard contracts/leasing contracts as a reference for stake holders



Highlight: Certified Solar Installer

- Training and certification for RTS installers on national policies, regulations and standards
 - **Installers' benefits include:**
 - Recommendations via certifications
 - Reputation for the company
 - Access to training and industry guidelines and installation checklists
 - **Customers' benefits include:**
 - Access to vetted and recommended installers
 - Quality installation by certified installers
 - The best performance of the installed system
- Partnership/ Cooperation between **Energy & TVET Programme of GIZ Vietnam**
 - Future cooperation with Ninh Thuan and Long An vocational training colleges
 - Provide technical trainings for trainers (ToT) from GIZ-TVET associated colleges.
 - Potential for scaling up (training and certifying +1,000 solar technicians in Viet Nam)



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Further activities in the technical and administrative framework

- Review and revision if required of the **grid codes/ others** to facilitate renewable energy including RTS integration
 - Working with **ERAV, EVN, NPT, NLDC** to discuss technical gap in the current grid-code
 - Recommend changes of regulations on **voltage, frequency, stability** at the point of the common connection
- **Manual for RTS Interconnection**
 - Recommended an installation process of RTS system to PV installers
- **Others**

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Thank you MOIT/GIZ ENERGY SUPPORT PROGRAMME

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