



Certified Energy Savings Verifier **(CESV)**

Key to Scaling up EEP Funding

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Major Barriers to Scaled-up funding of Energy Efficiency Projects (**EETPs**)

- Small investment versus large complexities
- Lack of confidence in savings being achieved
- Lack of ‘attractive’ project financing for end users
- Funders are looking for ‘Silver Bullet’ solution to the Measurement & Verification (**M&V**) of savings:

M&V is the meter of an EEP!!!

GLOBAL M&V Gap

- There is a global M&V gap resulting in an inability of funders and end users to reliably verify energy savings from EEPs on a sustainable basis
- It is caused by a lack of generally accepted, technically-sound M&V best practices being properly applied by trained professionals
- Market needs experts who have knowledge in evaluating energy savings for special energy saving measures and are skilled in calculation methodologies of energy savings



Global M&V Solution

- There is **NO SILVER BULLET!**
- **ANOTHER PROTOCOL IS NOT NEEDED!**
- Solution is creation of a new, recognized category of professionals who are capable to independently certify estimated and actual savings of EEPs:

“Certified Energy Savings Verifier”
(CESV)



What is a CESV?

- An engineering-based individual who has capability to provide an independent certification of the estimated and achieved savings of energy efficiency projects (**EEPs**)
- A new high-grade professional M&V certification created by the Efficiency Valuation Organization (**EVO**) for individuals who demonstrate sufficient:
 - M&V knowledge to pass EVO's rigorous CESV Exam
 - educational background and M&V experience
- Analogous to a Certified Public Accountant (CPA) who provides independent certification of financial statements



Who is EVO?

- EVO is an 18-year US non-profit entity that owns/manages the globally-recognized *International Performance Measurement and Verification Protocol* (**IPMVP**)
- IPMVP is the long-standing document of generally accepted principals applied in M&V plans to measure, verify and calculate the energy savings of EEPs
- EVO provides M&V trainings and introductory CMVP certifications with AEE to individuals in over 20 countries through local private training entities
- EVO's objective is to ensure global energy efficiency savings are accurately measured and verified



CESV Core Competencies

- CESVs must have the capability to evaluate and independently certify that an EEP's:
 - Pre-Installed energy savings estimate is materially correct
 - Pre-Installed M&V Plan complies with the generally accepted principals of IPMVP and other recognized M&V standards and best practices
 - Post-installed energy savings have been calculated according to the certified Pre-Installed M&V plan and that they materially reflect the actual savings achieved

China M&V Gap

- China is largest GHG emitter in the world and has embedded significant energy efficiency targets in its policies through energy intensity targets in its FYPs.
- China has been unable to accurately verify its claimed 339.9 million of tce energy savings from US\$140 billion invested during the 11th FYP (2006-2010)
- China will be unable to accurately verify 670 million tce reduction needed to achieve the 16% decrease in energy consumption per during the 12th FYP (2011-2015) from an estimated US\$140 billion investment.



CESV-China Program

- EVO is piloting the CESV program in China with the China National Institute of Standardization (**CNIS**)
- CESV-China aims to fill M&V gap in China caused by the lack of generally accepted, technically-sound M&V performed by 26 government energy centers
- CESV-China is a 3-4 day M&V training and exam program:
 - EVO materials localized by CNIS
 - EVO will co-certify CESVs with an accredited Chinese certifying body to obtain market recognition and acceptance of CESVs
 - Certification based on individuals passing the CESV-Exam and meeting education and M&V experience