

Lessons from CDM monitoring, reporting and verification: “good” methodologies, “bad” methodologies

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CDM EB Side Event: Experience gained, and lessons learned from the CDM

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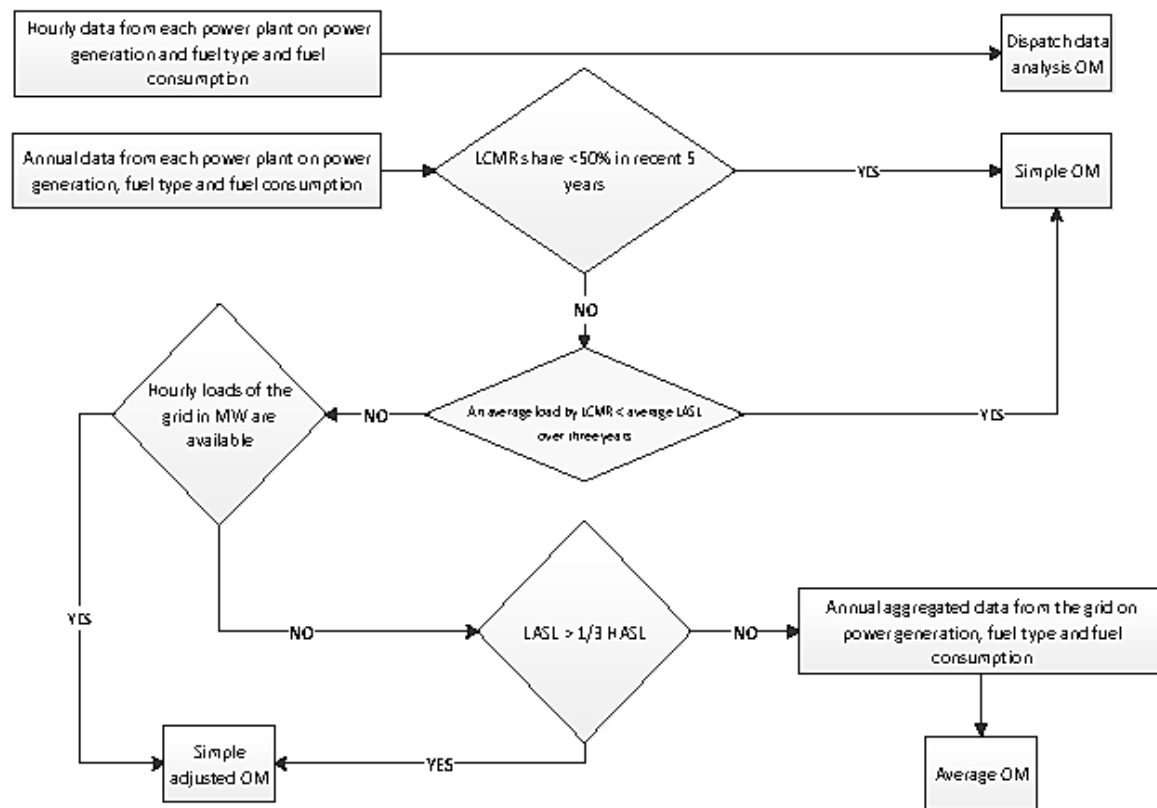
- Book to be published soon (Portuguese version in December 2018, English version in 2019, initiated by the Brazilian Ministry of Science, Technology, Innovation and Communication (MCTIC), coordinated by the Institute of Applied Economic Research (IPEA).
- Provisional title: ***CDM's legacy - Impact and lessons learned from the implementation of the CDM in Brazil as support to new mechanisms*** ("Legado do MDL: Impactos e lições aprendidas a partir da implementação do Mecanismo de Desenvolvimento Limpo no Brasil como subsídios para novos mecanismos.")
- Sixteen chapters, Introduction to CDM and overview of CDM projects in Brazil (1-2), impacts of the CDM in different sectors (3-11), climate change negotiations and new agreements/mechanisms (12-15) and conclusions (16)
- Chapter 4 – Experience and lessons learned in the energy sector by A.R.J. Esparta and K. M. Nagai

- **Energy sector:** introduction, projects in the energy sector, CDM impact by comparison (1996-2005, 2006-2015)
- 210 registered projects (Jun-2017) out of 342 (PoA, not CPA)
- Driving force for small hydropower plants (100) and wind projects (131), but less to electricity from biomass (21)
- Complexity in the determination and verification of emission factor of electricity grids → bottom-up solution, “good” methodology/MRV plan: 42 projects by the end of 2006, 221 projects (large, SSC, CPA) since then.
- Complexity in the determination of efficiency of biomass residues use for power generation → top-down solution, “bad” methodology/MRV plan: 24 projects (large scale) by the end of 2006, 2 projects since then (no CER issued).

"GOOD" MRV METHODOLOGY

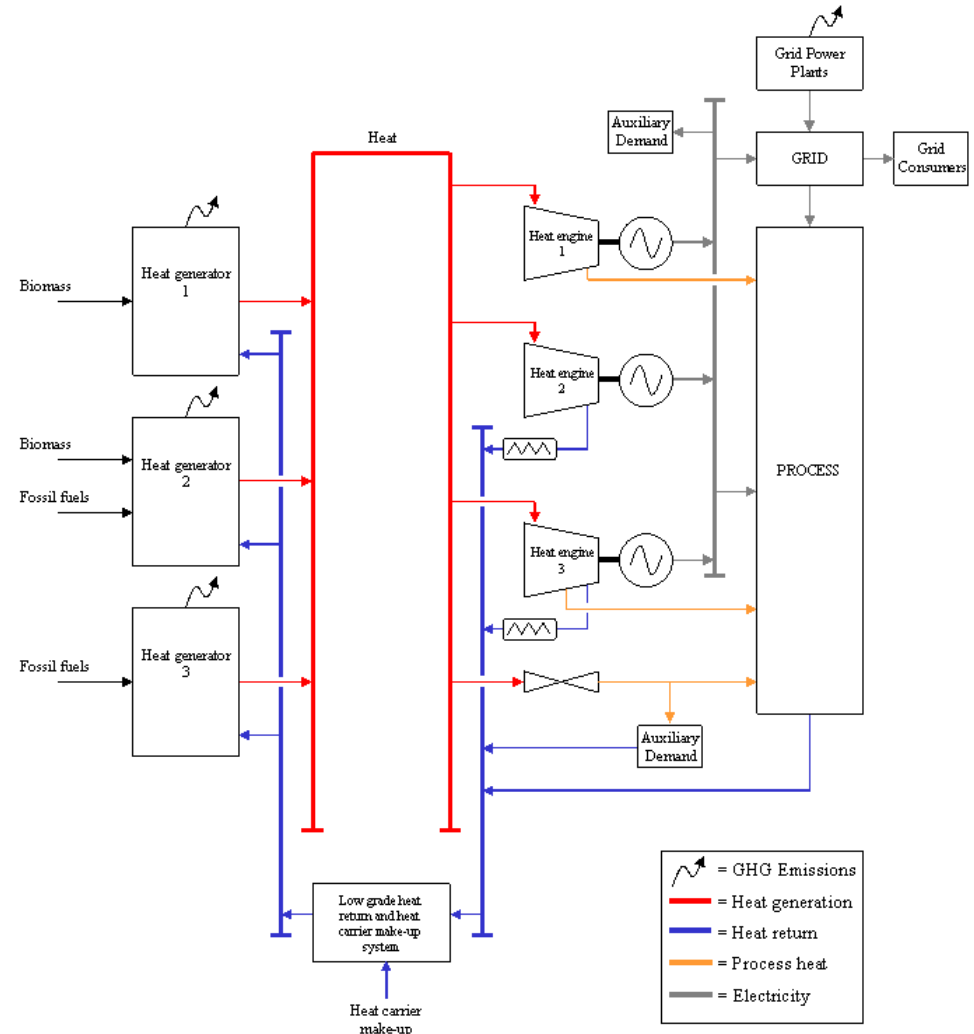
- **System dependent**
- **Business as usual monitoring**
- **Baseline scenario: electricity from the grid**

Figure 2. Flow chart: Overview of the application of OM methods



"BAD" MRV METHODOLOGY

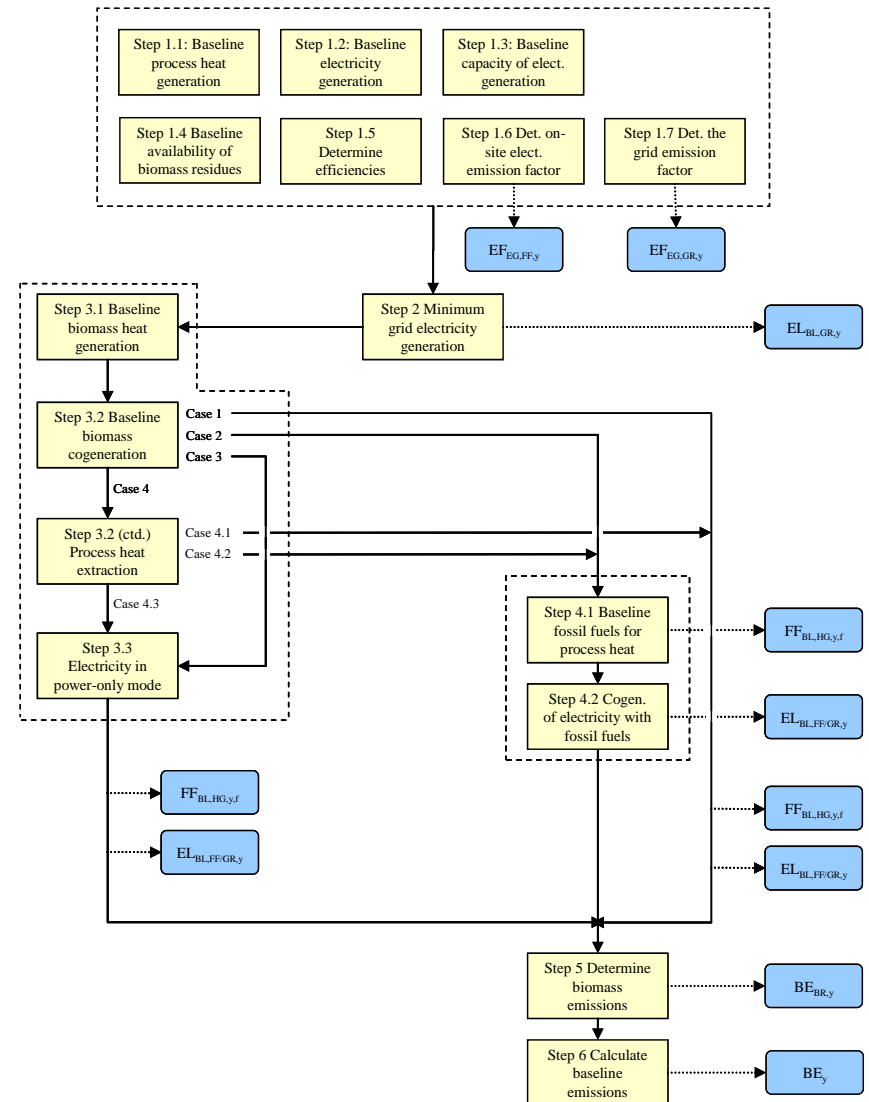
- **Project dependent**
- **Additional procedures for monitoring**
- **Alternative project scenarios**
 - **8 for power generation**
 - **7 for heat production**
 - **5 for mechanical power**
 - **8 for biomass use**



"BAD" MRV METHODOLOGY

- **Baseline calculation**

- **Heat**
- **Electricity**
- **Availability of biomass**
- **Efficiencies**
- **Onsite emission factor**
- **Electricity from the grid emission factor**



COMPLEXITY CAN BE ADDRESSED

- CDM → achieve credible, real, measurable, verifiable, long-term benefits and additional emission reductions... but none of these will be achieved if additional projects are not implemented.
- Good public policies → if the environment is complex, increased conservativeness at system level instead of increased project specific monitoring, reporting and verification. Suggestion: complexity is better addressed at system level.
- CDM meths are still being used, even if not for CDM projects
- Bikes for the Planet project starting in Brazil (see <http://cdm.unfccc.int/Projects/PriorCDM/notifications/index.html>) using AMS-III.BM, lightweight two and three wheeled personal transportation (we are looking for partners outside of Brazil :-)) and is facing the same issues (make it simple for developers).



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