Development of energy efficiency projects in industries and services

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Africa Climate Week “Climate Action for Sustainable Development: Driving Change in Africa” April,9th-13th, Nairobi, Kenya

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CONTEXT

Electricity




Households fuels



Oil products



CONTEXT

PSE line 287

Improve energy demand management : communication, efficient light, pricing, incentives, peak demand shaving…

LPDSE

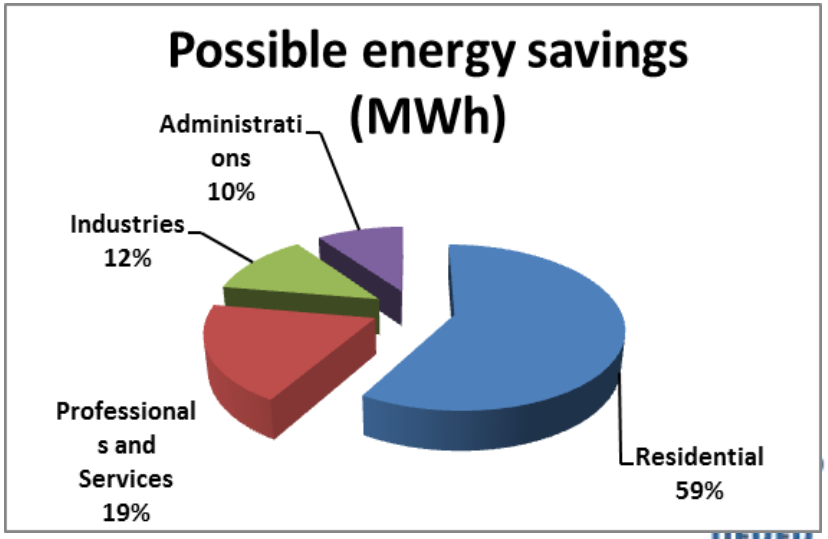
Target : 40% energy saving by 2020:
Implementation of measures from DSM study

1271 industries & 1929 MV-HV

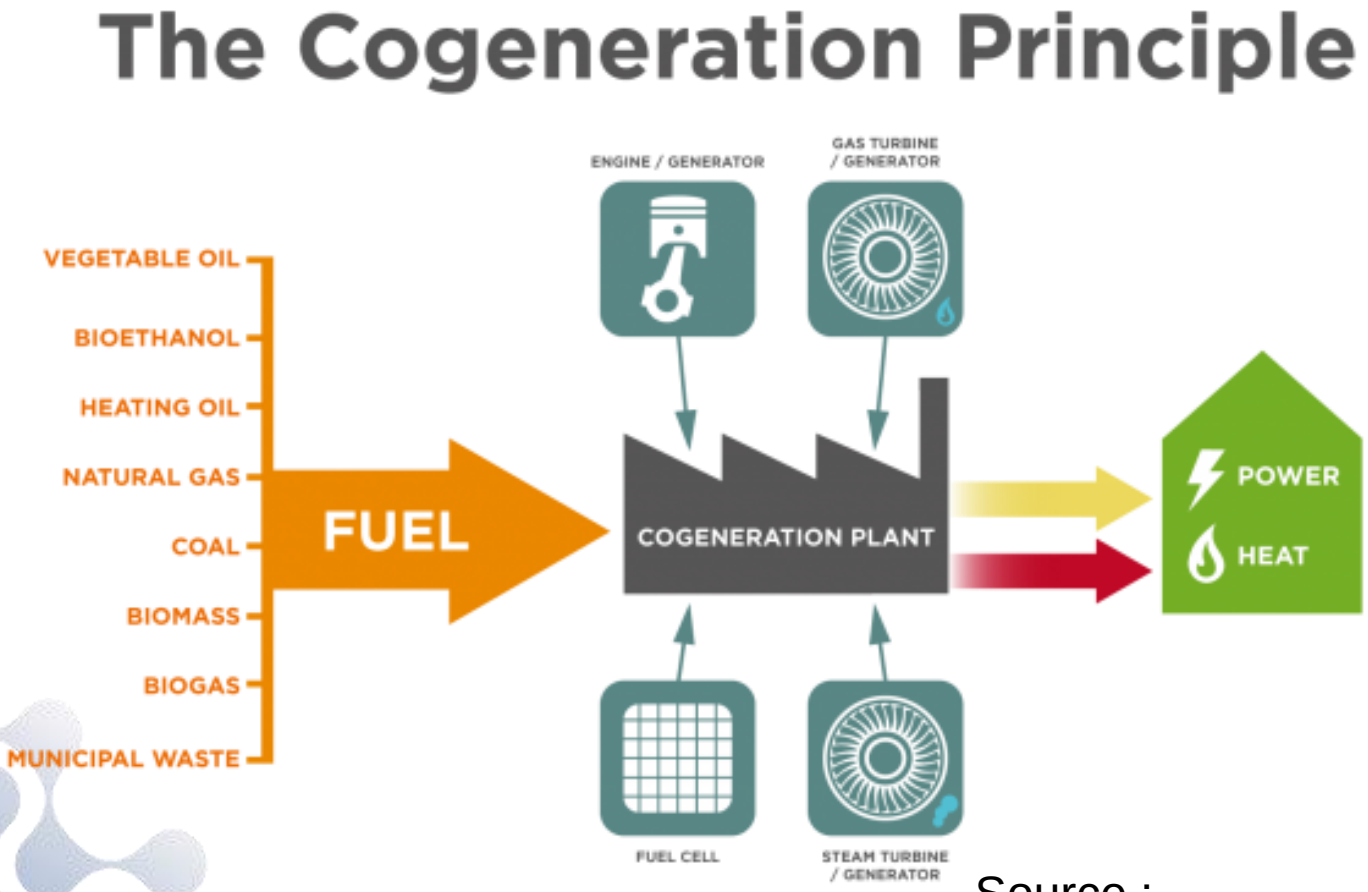
-de 1% of consumers

36% electricity cons & 16,3% energy con

	Energy consumption by 2020 (MWh)	Possible energy savings (MWh)	share in energy consumptions
Professionals and Services	1211401	420311	35%
Industries	1338513	271644	20%
Administrations	415408	218698	53%
Total	5142201	2191314	43%



Why cog/ tri generation ?



Source : http://northernutilities.co.uk

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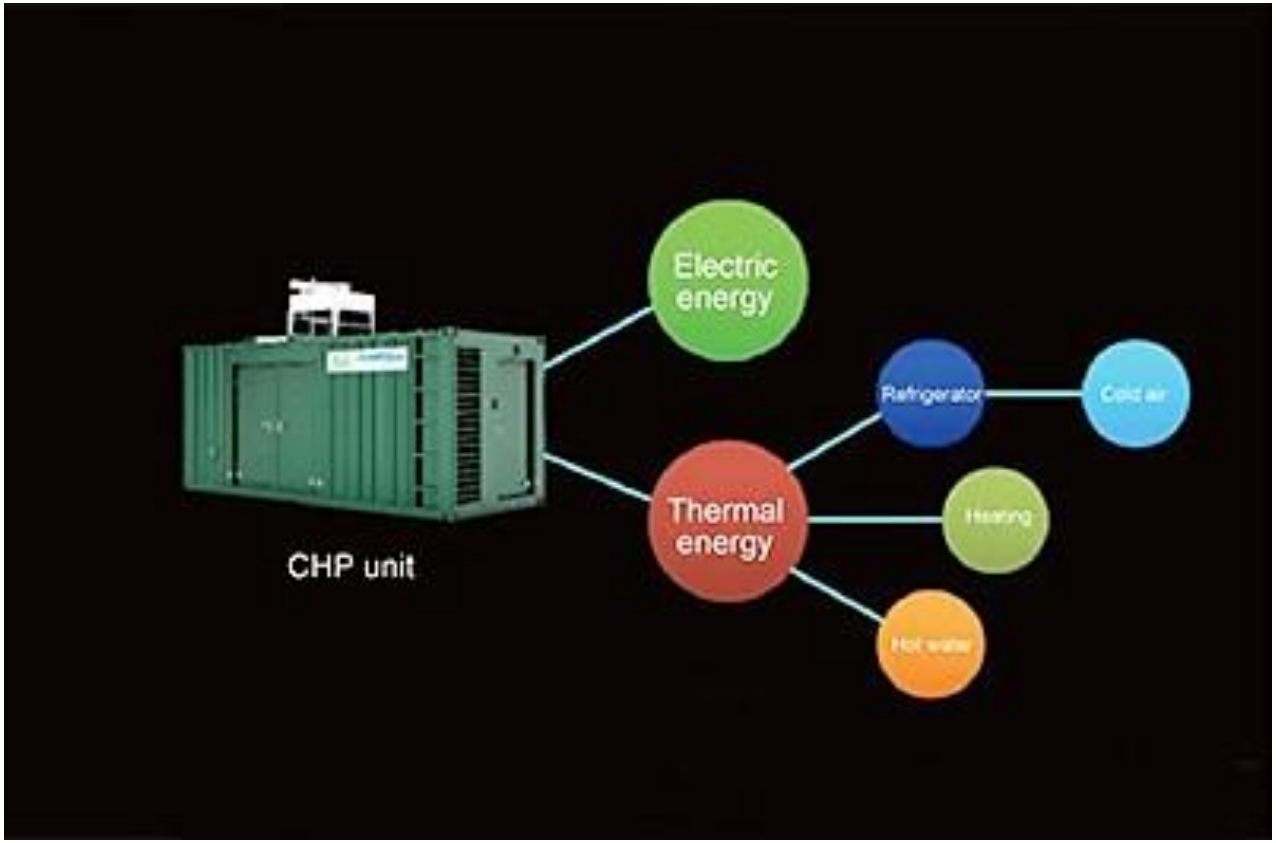

Source adapted from
http://www.ettespower.com

Why cog/tri generation ?

Co/tri generation allows multi-level energy optimisation :

- Energy consumption (especially fossil) : better use of fuel
- Use of renewable energies : local resources such as waste, biomass, …
- Investment in the energy sector : proximity of co/tri generation units reduces investments in network distribution and energy losses by around 30 to 40 %.
- Reduced spending on electricity which helps to reduce operating expenses.

Limits of co/tri generation:

- Exact estimation of heat and cold requirements determines the choice and dimensioning of the units of co/tri generation

Our expectations

Findings

- **Available study not detailed**
- **Co/tri generation technology is not well developpeds in the coun**

Study and tools develop ment

Expectations

Highlight:

- ✓ **Technology analysis**
- ✓ **Constraints for its deployment**
- ✓ **Required investment**
- ✓ **Detailed implementation**
- ✓ **Appropriate monitoring & evaluation tools**
- ✓ **Financial scheme and resource recovery**
- ✓ **Environmental issues**

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Our expectations

Project development	Capacity building	Technical advices on policies	Adaptation to local context
help to prepare, for specific industries and services, the project documents for its implementation and the financial scheme for the required investments.	proposed technology is not well known in the country, for its effective promotion, teams needs to be trained well to master the subject and be able to manage well the project.	help to identify the other measures to undertake or to propose in order to back the development of the project. Policy measures are important for the adoption of some practices and technologies than demonstration and communication;	to specific needs in the country and to the local existing materials for the fuel. The adaptation of this technology to the local context will improve its benefits and can reduce its costs

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Strengthen the projects of AEME

Efficient lighting

Test laboratory implementation; diagnosis of lighting at household level (1025) and administrative buildings (33); feasibility study and environmental study; capacity building for customs; 15924 LED and 82604 CFL diffusion; savings of 3.99 GWh et 0.9 million USD

Administration

Diagnosis of subscription policies, billing file analysis, identification and correction of anomalies, installation of capacitor bank, savings of 0.82 million USD

Communication

Website on energy efficiency, media communication for consumers and institution, road shows, chat, flyers and other communication support.

Regulations

Decree to forbid incandescent lamp importation and decree for mandatory compliance with standards; draft decree on labelling domestic equipment, 28 standards adopted on public lighting and work place lighting, domestic equipment and solar water heating

Studies

Feasibility study/project impact study, pre-diagnoses and energy diagnoses , thematic studies for communication support development

Training/Capacity building

Regional training workshop on energy efficiency; capacity building for stakeholders.

Partnerships

International partners (ADEME, AMEE, MAC, IFDD, ANME) and national partners (ASN, SENELEC, PNEEB-TYPHA, SN-HLM, PROQUELEC, PACEV, DGPU)

What actions to support promotion of co/tri generation ?

Inclusive partnership approach

- Stakeholders mapping (listing, interest, etc.)
- Roles and responsibilities
- Communication plan of each stakeholder

Technology solutions adapted, bankable and generating advantage

- Energy needs estimation by sector and sub-sector
- Resource evaluation by sector and sub-sector
- Technology guide (identification and selection of technology)
- Feasibility study of the chosen technology
- Project development with bankable business plan

Awareness and demonstration

- Use existing projects as demonstration showcase
- Implementation of new demonstration project
- Clear and adapted documentation
- Field visit and on-site training
- Information and advice services (MEME & BMN)
- Monitoring and evaluation
- Promotion campaign

What actions to support promotion of co/tri generation ?

Political willingness and favourable regulatory and institutional framework

- Specific decree for co/tri generation
- Develop a coordinating body among many existing agencies
- Awareness and capacity building
- Better collaboration between the electricity company and auto-producers developing co/tri generation projects

Capacity development and targeted human resources

- Needs analysis and skill gap among stakeholders
- Development and continuous adaptation of training
- Engineering and project management
- Operation and maintenance
- Research Development &Demonstration

Appropriate and effective incentive system

- Capital investment grant (per installed kW)
- Interest rate subsidy
- Favourable tax system (customs exemption)
- Feed-in tariffs
- Bonus system (per installed kW)
- Net metering
- CO_2 tax deduction

ASANTE SANA

Thank you for your attention