Training Workshop on:
« Technical & Economic Aspects for developing energy efficiency (EE) investment projects »

The role of a National Energy Conservation Fund (NECF) in supporting Energy Efficiency Programme

Tunis
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1. A National Energy Conservation Fund as a part of an Energy Efficiency Programme

2. The Tunisian Experience of FNME

3. Proposals of Operational Approaches for a National Energy Conservation Fund
A National Energy Conservation Fund as a part of an Energy Efficiency Programme
1. A National Energy Conservation Fund as a part of an Energy Efficiency Programme

An Energy Efficiency Programme could be successful if various conditions are met:

- A Strong Institutionnal framework supporting EE; including a Sustainable coordinating Entity (eg. ANME)
- A Strong and Reactive Regulatory Framework
- A Good Capacity Development Programme
- A relevant Financial support
- An efficient Communication program
- A Tarification system of Energy products, reflecting –to the best possible- the real costs
1. A National Energy Conservation Fund as a part of an Energy Efficiency Programme

- A good combination of these conditions will enable a successful EE policy
- Weakness of one or several conditions:
  - Affects the results, or
  - Imposes to provide much higher financial incentives:
    - E.g. heavily subsidized energy prices affect cost-effectiveness of EE actions
- Sustainability of the State Engagement in supporting EE and Visibility for beneficiaries are important factors for EE success
1. A National Energy Conservation Fund as a part of an Energy Efficiency Programme

- Financial support, alone, will have limited impacts
- Sustainable Institutional, Regulatory, Capacity Development, and financial supports are the four pillars for any successful EE program
The Tunisian Experience of FNME
2. The Tunisian Experience of FNME

- Subsidy to EE was limited to 5% of the Investment up to May 2001
- Since May 2001, the subsidy was raised to 20% of the Investment in EE
- Subsidies were provided by Operational State Budget
2. The Tunisian Experience of FNME

- **FNME created by Law n°2005-106 (19 December 2005);** provides for:
  - Sustainability of the financial resources
  - Visibility for Operators

- **FNME is a** Special Treasury Fund dedicated to Energy Conservation (EE, ER and fuel switching)
2. The Tunisian Experience of FNME

FNME ➔ Extra-budgetary resources:

✔ Taxation of first registration of vehicles:
  • From 250 TND (US$160) to 2000 TND (US$1,300) depending on engine capacity and fuel used (gasoline or diesel)

✔ Taxation of air conditioning equipment:
  • 10 TND (US$6.5) / 1000 Btu.
2. The Tunisian Experience of FNME

- FNME can also receive:
  - Resources resulting from Fund interventions (e.g. Interest revenues in case FNME creates credit lines)
  - Donations and subsidies from persons or organizations
  - Any other resources that can be allocated as a result of any regulatory decision (e.g. taxation on Incandescent lamps)
  - It is also expected that CDM revenues resulting from projects implemented by public entities would be deposited into the FNME
2. The Tunisian Experience of FNME

- **FNME is fully** dedicated to supporting dedicated Energy Conservation actions (EE, ER and fuel switching), as defined by Decrees/Orders.

- Level of support is also defined by Laws/Decrees/Orders; e.g.:
  - 200 TND (US$130) Subsidy for Residential Solar Water Heating systems (1-3 Sq meters)
  - 400 TND (US$260) Subsidy for Residential Solar Water Heating systems (>3-7 Sq meters)
Level of support is also defined by Laws/Decrees/Orders; e.g.:

- 30% Subsidy capped at 150 TND (US$95)/Sq meter for Solar Water Heating systems dedicated to Services and Industrial applications

- 20% Subsidy for cogeneration, capped at 500,000 TND (US$ 320,000)
2. The Tunisian Experience of FNME

- 20% Subsidy for any EE measures, capped at:
  - 100,000 TND (US$ 65,000) for entreprises consuming up to 4,000 toe/year
  - 200,000 TND (US$ 130,000) for entreprises consuming 4,000-7,000 toe/year
  - 250,000 TND (US$ 160,000) for entreprises consuming > 7,000 toe/year
2. The Tunisian Experience of FNME

- Various other subsidies also support:
  - Development of Photocoltaïc projects
  - Development of Biogas projects
  - Renewable Energy use in Agriculture sector
  - Energy Audits
  - Technical Assistance
  - Capacity building
2. The Tunisian Experience of FNME

- ANME is in charge of disbursing FNME Funds
- FNME had a real and strong leverage effect in promoting EE & ER investments:
  - Overall: 40 TND from FNME result in 1 toe savings
  - 1 TND (US$0.6) from FNME leverages 7 TND (US$4.5) of total investment in EE and RE
  - 1 TND (US$0.6) from FNME generates 18 TND (US$11) of total Energy savings over the whole lifetimes of the EE&ER projects
2. The Tunisian Experience of FNME

In addition, FNME:

- Reduces energy expenses for consumers; with:
  - Pay-back-periods ranging from 1 to 5-6 years for EE projects
  - IRR 25% to over 30%

- Reduces energy subsidies for State budget:
  - Pay-back-periods < 1 year (depending on Energy subsidies applied)

- Preserves National Resources and Macroeconomic equilibrium

Under Energy-Subsidy Tunisian circumstances
Proposals of Operational Approaches for a National Energy Conservation Fund
3. Proposals of Operational Approaches for a National Energy Conservation Fund

- **Ressources of the fund** should be fair, and in line with EE & RE objectives and principles.
- **Ressources of the fund** might include:
  - Taxation on fuels and electricity consumed
  - E.g. 2% tax on fuel consumed (US$10/toe) would:
    - Generate > US$80 million revenues for the fund/year in a country like Tunisia
    - Leverage > US$550 million Investments on EE&RE/year in a country like Tunisia
    - Generate > US$1.4 billion Energy savings over lifetimes of the involved projects.

Primary Consumption: 8.5 million toe in 2010

« Basic » Subsidy-based Fund interventions
3. Proposals of Operational Approaches for a National Energy Conservation Fund

- **Other Ressources of the fund** might include:

  - ✓ Taxation on vehicle imports, based on energy efficiencies
  - ✓ Taxation on energy consuming goods (e.g. refrigerators, Air conditioners, TV, etc.), based on energy classes
  - ✓ Taxation on Incandescent Bulbs
  - ✓ Etc.
3. Proposals of Operational Approaches for a National Energy Conservation Fund

- **Uses of the fund:**
  - All Energy efficiency and Renewable Energy actions and projects; including:
    - EE in Industry, Services, Transport, Agriculture, and Residential Sectors
    - EE in buildings/construction
    - Cogeneration projects
    - Efficient and RE energy generation
    - Technical Assistance and Capacity building in EE & RE
3. Proposals of Operational Approaches for a National Energy Conservation Fund

- Should be established for long term perspectives ➔ Strong signals for beneficiaries

- Intervention approaches of the Fund:
  - Relevant Investment Subsidies
  - Credit lines
  - Creating Investment Funds/Financial operators (e.g. Capital risk funds) dealing with EE & RE
  - Contributing to ESCO Capital
  - Bonifying Interest Rates
  - Tailored intervention approaches depending on « clients » (public entities, private enterprises, individual consumers)

Insist on « Mechanisms » and Revolving-based interventions

To the extent possible, reduce time duration
3. Proposals of Operational Approaches for a National Energy Conservation Fund

Efficient Intervention approaches
→
maximize the Fund Leveraging Effect
3. Proposals of Operational Approaches for a National Energy Conservation Fund

- Procedures:
  - Should be fast and soft
  - Managed by dynamic and specialized entities
END OF PRESENTATION

Thank you